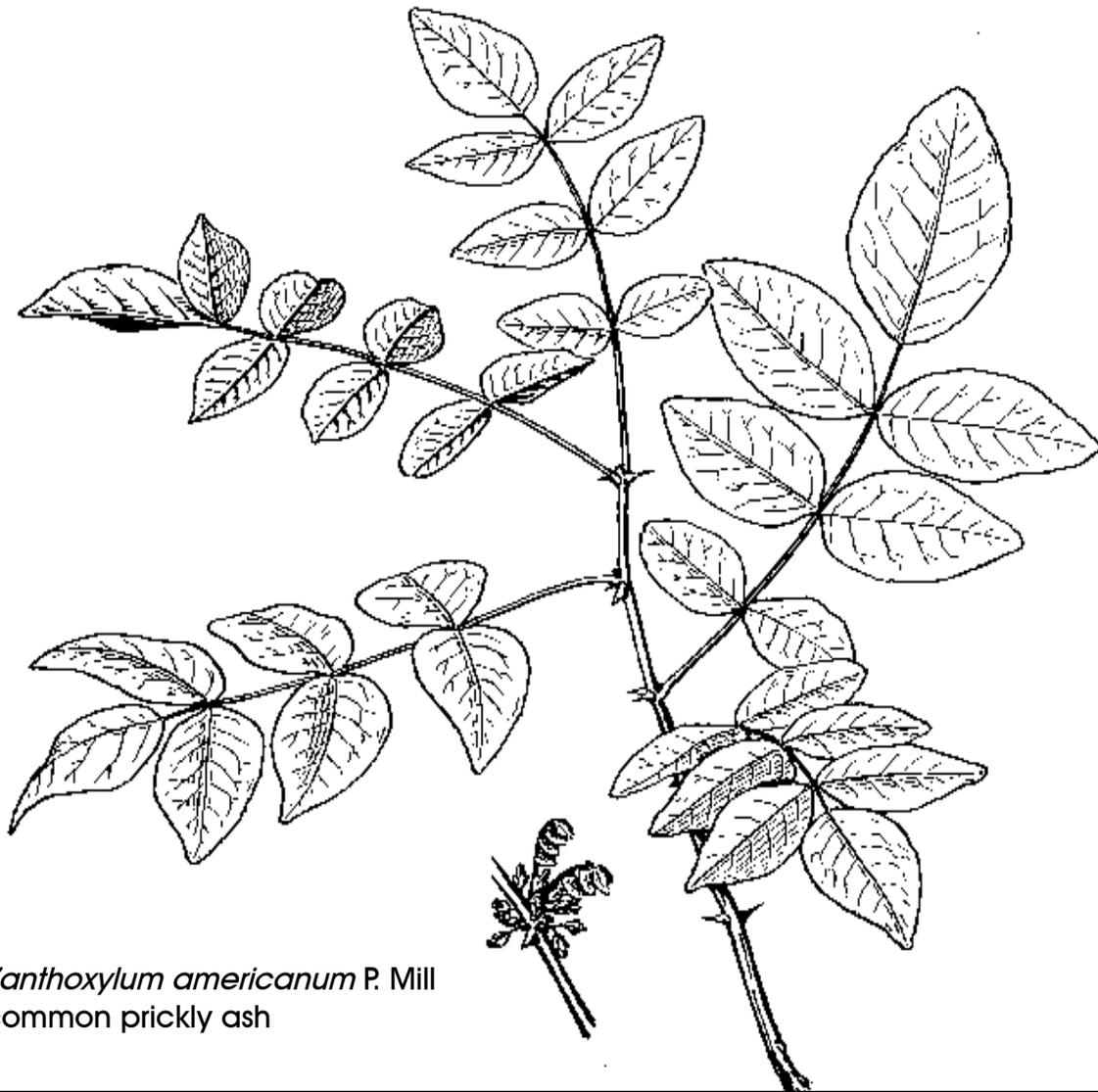


# The Vascular Flora of Kennesaw Mountain

Marietta, Cobb County, Georgia USA

L. Scott Ranger, 2009 Revision



*Zanthoxylum americanum* P. Mill  
common prickly ash

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First written in 1997 with a major revision 2006 and 2009 to the text.  
Updates are made to the checklist as new sightings and taxonomic changes are made.

#### Cover Illustration

*Zanthoxylum americanum*, American pricklyash or toothache tree occurs on Kennesaw Mountain on the southern periphery of its range. It is common in the north, especially from Minnesota to Ontario, but here in the southeast it is quite rare occurring in widely scattered locations of quite different habitat from dry, rocky woods like Kennesaw Mountain to sandy riverbanks in the coastal plain. It is typically found on neutral to basic soils and thus is an indicator plant for mafic plant communities.

Sexes are separate (dioecious) and all the plants on Kennesaw Mountain are male and form a clonal genet.

“Two or three sterile specimens of this species were collected on the northern slope of Kennesaw Mountain, at 1750 ft. altitude, July 12 (no. 229). It has not to my knowledge been reported from the Southern States before, but I find in the Columbia University Herbarium a specimen, similar to mine, collected on Stone Mountain by Dr. Small.”

Harper, R.M. 1900. On a collection of plants made in Georgia in the summer of 1900. Bulletin of the Torrey Botanical Club, Vol. 28, No. 8 (Aug., 1901), pp. 473.

Front cover drawing is from:  
Krochmal, A., R.S. Walters & R.M. Doughty. 1969. A guide to medicinal plants of Appalachia. U.S.D.A.  
Forest Service Research Paper NE-138.

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## Contents

The Vascular Flora of Kennesaw Mountain .....	1
ACKNOWLEDGEMENTS .....	1
STUDY AREA .....	1
GEOGRAPHY OF THE STUDY AREA .....	1
Topography .....	1
Land Use Setting-Historical .....	1
Land Use Setting-Current .....	2
METHOD .....	2
GEOLOGIC & SOIL SETTING FOR THE FLORA .....	2
Geology .....	2
Chemistry .....	3
Soil .....	3
Significance .....	4
HABITATS .....	5
Hydric .....	5
Xeric to Mesic .....	5
RARE AND UNUSUAL PLANTS .....	6
Federally Listed (USFWS 1997) .....	6
State Protected (Patrick <i>et al</i> 1995) .....	6
Georgia Tracking List of Special Concern Plants .....	6
Georgia Plant Watch List: .....	6
Other Notables .....	7
Potentially Occurring Plants .....	7
REFERENCES .....	7
Satellite Photo of Kennesaw Mountain .....	9
Topographic Base Map of Kennesaw Mountain (USGS) .....	10
Geologic Map of Kennesaw Mountain .....	11
Soil Map of Kennesaw Mountain .....	12
Habitat Map of Kennesaw Mountain .....	13
Checklist of the Flora of Kennesaw Mountain .....	14

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# The Vascular Flora of Kennesaw Mountain

Marietta, Cobb County, Georgia USA

L. Scott ranger

## ACKNOWLEDGEMENTS

I wish to acknowledge the assistance of those who helped with this survey. Richard Hanks, John Cissel and Retha Stevens of Kennesaw Mountain National Battlefield Park provided much help by reviewing the manuscript, providing access to the park library and offering suggestions regarding the land use history of the park. P.E. (Ed) Bostick of Kennesaw State University began a survey here long before mine and has been a continuing help. Richard Ware spurred my writing of the paper with his publication of *Checklist of the Vascular Plants of Floyd County, Georgia* and spotted at least one plant I had not found on the mountain. David Emory helped by reviewing the manuscript. Jim Allison and Tom Patrick of the Georgia Natural Heritage Program were of immense help in their critical look at my identifications. Steve Bowling helped my understanding of mafic plant communities. Any errors, misstatements or other inaccuracies are entirely my responsibility.

## STUDY AREA

This study covers Kennesaw Mountain, specifically that area of Kennesaw Mountain National Battlefield Park enclosed by: Old US 41 at Stilesboro Road west to the park boundary, south to Old Mountain Road, south to Burnt Hickory Road, east to the park boundary, north to Kennesaw Avenue, north to Old US 41 to Stilesboro Road. It does not include the southern half of the National Park south of Burnt Hickory Road nor park area north of Stilesboro Road or west of Old Mountain Road.

## GEOGRAPHY OF THE STUDY AREA

Kennesaw Mountain is a major geographic feature of the northwest Atlanta metropolitan area, one of several monadnocks that rise above the Piedmont. It is the focus of Kennesaw Mountain National Battlefield Park, the site of a Civil War battle in June of 1864. It is located in north central Cobb County just north of the town square of the city of Marietta.

## Topography

The mountain is a dominating presence as it rises some 900 feet above the Piedmont penneplain with its average elevation about 900 feet to an elevation of 1,808 feet above sea level. It forms a ridge just under two miles long that runs a northeast-southwest line. Big Kennesaw Mountain forms the higher of two summits, with Little Kennesaw Mountain reaching an elevation of 1600 feet above sea level. Pigeon

Hill at the extreme southwest end of the ridge rises 1,240 feet above sea level (USGS 1992). The slopes are steep—up to a 45% slope—with numerous outcrops of rock faces and boulders, yet other than the bare rock and adjacent areas, the mountain is entirely forested.

## Land Use Setting-Historical

Prior to the Civil War, little information is available about land use patterns. In 1864 Cobb County recorded 10,000 whites and 4,000 blacks. Farms were large and owned by the tenant (Blythe, *et. al.* 1995). During the Battle of Kennesaw Mountain, an extensive network of entrenchments was dug for infantry and cannon emplacements, many of which remain in various stages of erosion. In the primary visitation areas, the Park Service maintains the earthworks. Those on the flanks of the mountain have been left alone for over a century and are among the better preserved. Much of the summit of both Big and Little Kennesaw Mountains was completely cleared of forest during the war. One southern soldier remarked after the battle that the mountain should be renamed “Bald Mountain.” Large boulders were rolled down Pigeon Hill to deter attack by Union soldiers (NPS1). Most of the information about the park at the time of the battle is based upon Nichols “Historic Ground Cover-June 1864” although no methodology is documented for the generation of this map (Nichols, 1980). It shows in a general fashion the areas of farmed, forested, and cleared land on the mountain, and in more detail the earthworks.

After the civil war, Cobb County grew rapidly in population and many farms changed from owner operated to tenant operated. A comparison of the maps used by General Sherman in 1864 and the ground cover map with aerial photographs from the 1930's (NPS4) indicates a large increase in cleared lands in the area around the mountain. The slopes of Big Kennesaw Mountain from above the residential area around to just below the base of the mountain parking lot bear the scars of terraces cut to grow peaches during the period after the Civil War to approximately 1900-1910 (NPS3). Most of the flanks of the mountain below 1,200 feet were cleared for agriculture and later abandoned during this same period.

Areas of the current park outside of the study area, were under the ownership of several memorial associations shortly after the Civil War. In 1917 the Kennesaw Memorial Association of Illinois offered land to the U.S. Government and was accepted by act of Congress on February 8, 1917 to be managed by the War Department as a National Battlefield Site. On June 10, 1933, President Franklin Roosevelt transferred the park and cemetery functions of the War Department to the

National Park Service. On July 28, 1933 Kennesaw Mountain Battlefield Site was specifically transferred by executive order to the National Park Service. The mountain was designated a National Battlefield Park by act of Congress on June 26, 1935 with additional land added on August 9, 1939 (NPS2).

Along the east boundary near Kirk Road are the remains of a Civilian Conservation Camp that operated from 1938-1942 (NPS5). All that remains today are cement footings for the buildings and the old roadbeds.

As a National Park, a new road to the summit and parking lot was graded and paved. Parts of the old dirt road from Kennesaw Avenue remain as maintenance access and part for the current foot trail to the summit. A Visitor Center, picnic area, and four residences for park employees were built. A multi-purpose transmission tower is located between the summit parking lot and the top of the mountain with a service building.

### Land Use Setting-Current

Marietta and most of Cobb County is a suburb of the Atlanta metropolitan area. The area to the south of the mountain is heavily urbanized and the area to the north and west is becoming more urbanized, although it retains much of its rural character. The boundary of the park in the study area is about equally adjacent to private residential housing and along public roadways.

Park visitation is among the higher in the National Park system averaging about one million per year (NPS3). While designated a National Park to commemorate the Civil War battle, most of the use of the park is by local residents for recreational purposes, particularly on spring and fall weekends. The bulk of the visitation is concentrated in the area from the Visitor Center along the mountain road and trail to the summit of Big Kennesaw Mountain where evidence of effects on the landscape and flora by humans is marked. Outside of this area, evidence of effects by humans is very limited except along the park boundary where houses adjoin and the trail from Burnt Hickory Road to the summit of Pigeon Hill. A dirt roadway extends from Kennesaw Avenue on the east to Burnt Hickory Road on the south, about half of the distance being near the park boundary. It is heavily used by joggers and lightly by Park Service maintenance vehicles.

### METHOD

The checklist represents observations from over fifty days of hiking through the defined area beginning in 1979—methodically in 1989—and continuing to the present through all seasons. The plant species listed are those seen and identified, but none have been collected and no voucher specimens exist. The walks began following the trails of the park, but not long into the survey, cross-country explorations began, usually by starting at the top of either Big Kennesaw

or Little Kennesaw mountains and walking a path downslope, beginning with drainages and later extending to dry slopes. Virtually every part the mountain has been explored. The plants encountered since 1989 have been logged into field notebooks.

The survey began from my own curiosity. I learned that P.E. Bostick of Kennesaw State University had done work on the mountain and he allowed me to copy his field notes (Bostick, unpublished) from explorations in 1973 and 1976. They, along with his survey of Panola Mountain (Bostick 1971), were very helpful in giving clues as to what to look for. I assisted him in his monitoring of four species for The Nature Conservancy (Bostick 1994).

Plants were identified through my own knowledge and the use of the following floras and treatments: Brown & Kirkman (1990); Cronquist (1980); Duncan & Duncan (1988); Fernald (1950); Flora of North America editorial committee (1993+); Foote & Jones (1989); Isley (1990); Luer (1975); Peattie (1958); Radford, Ahles & Bell (1968); Small (1933); Snyder & Bruce (1986); Weakley (2004-8); and, Wofford (1989). Additional information regarding distribution was gained from: Chester, Wofford & Kral (1997); Chester, Wofford, Kral, DeSelm & Evans (1993); Jones & Coile (1988); and, Mellinger (1984).

Nomenclature and taxonomy follow Weakley (2008) and reflect his adoption of major reconstruction of families like the Liliaceae and Scrophulariaceae.

### GEOLOGIC & SOIL SETTING FOR THE FLORA

#### Geology

Kennesaw Mountain is composed of Late Proterozoic to Middle Ordovician migmatitic gneiss given the name “Informal migmatite of Kennesaw Mountain” (Higgins, 2003). It was formerly known as part of the Laura Lake Mafic Complex (McConnell & Abrams 1984). It is identical to metatondhjemite gneisses (metamorphosed light-colored intrusive igneous rock with plagioclase is mostly in the form of oligoclase) in the area such as the Villa Rica Gneiss. A migmatite is a high grade metamorphic rock that reached pressures (~5 kilobars or 500 GPa) and temperatures just short of rock melt (~800°C) where it behaves something like plastic resulting in complex pygmatic folding and mineral banding. This can be easily observed near the summit of Big Kennesaw Mountain, but especially so on the slopes of Pigeon Hill.

The understanding of the complex geologic history of the Atlanta area Piedmont has changed significantly in recent years with more detailed mapping. There are two assemblages of rocks that outcrop in the Atlanta area: 1) material that was part of the margin of Laurentia (which will become North America) termed parautochthonous as it was formed generally in place; and, 2) material that was thrust upon the margin of

Laurentia due to tectonic forces and is termed allocthonous as it was formed someplace else and moved into its new position. This tectonic activity occurred during Middle through Late Ordovician time as part of the Taconic Orogeny when oceanic basalts—either from underwater mid-ocean ridge flows or island arc volcanic eruptions—and some other material were thrust upon Laurentia some 450 million years ago. With later mountain building events, both the parautochthonous and allocthonous assemblages were extensively folded and metamorphosed during the Acadian (Silurian to Devonian) and Alleghenian (Permian) orogenies.

These assemblages have been given a number of names as different terranes (crust fragments broken off from one area and thrust or transported to another) such as the Jefferson Terrane (Horton, 1989), the Eastern Blue Ridge and Inner Piedmont Terrane (Churnet 1977), or the Piedmont-Blue Ridge Province (Higgins 2003). As mapping became more detailed, many of these earlier terranes became suspect as they did not match the stratigraphy of the rocks the mapping unfolded. The generalized tectonic map below illustrates current understandings of the complex of thrust sheets that forms our area (Higgins 2003).

The rock and soil derived from it have abundant magnetite, easily collected with even the smallest magnet.

**Chemistry**

Kennesaw Mountain’s rock, as well as the Ropes Creek Metabasalt are mafic, high in magnesium, iron and calcium and lower in both siliceous oxides (quartz and quartzite) and felsic minerals (K-Al silicates, feldspars) when compared with most of the gneiss of the Piedmont.

Figure 1:  
Chemical Analysis of Selected Piedmont Rock  
% Composition

	LLU	AG	INT
SiO <sub>2</sub>	45.2	73.6	69.3
Al <sub>2</sub> O <sub>3</sub>	17.1	13.4	16.5
Fe <sub>2</sub> O <sub>3</sub>	4.6	0.8	0.6
FeO	7.7	0.9	1.4
CaO	12.6	1.7	1.8
MgO	7.5	0.6	0.5

LLU: average of 5 samples of the Laura Lake Mafic Unit (Vincent *et al* 1990)  
AG: average of 15 samples of the Austell Gneiss (McConnell & Abrams 1984)  
INT: average of 5 samples of intrusive rock (granite) (McConnell & Abrams 1984)

**Soil**

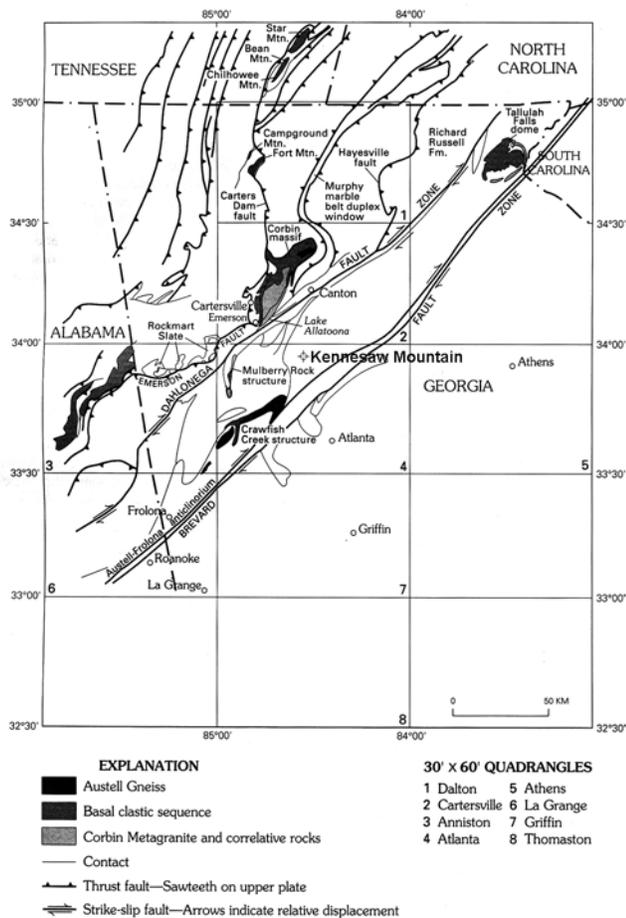
Soils of the Piedmont have formed in place from the weathering of the parent rock, so the soil composition may be presumed to be substantially similar to the parent rock. (See Map 3: Soil Map of Kennesaw Mountain)

Study area soil (Thomas 1973) is of two types:

1. Pacolet-Musella-Louisburg association of the main slope of the mountain characterized by well to excessively drained soils on slopes of 10 to 45%, red to brownish-yellow color, a clayey to loamy subsoil, about 80% of the soil stony and depth to hard rock mostly less than 36 inches.

1a. The summit of Big Kennesaw Mountain and virtually all of Little Kennesaw Mountain and Pigeon Hill is Louisburg stony loam with slopes of 15 to 45% on hillsides. It is a stony and dark grayish-brown sandy loam 3 to 7 inches thick over a subsoil of yellowish-brown sandy loam. Distance—away from rock outcrops—to soft rock is about two feet, and to hard rock just under three feet. It is low in natural fertility and organic matter and acid to strongly acid (4.5 to 5.0 pH). It forms about 40% of the study area.

1b. The bulk of the slope of Big Kennesaw Mountain is Pacolet stony soil on slopes of 10 to 45% with a yellowish-brown surface of loam, sandy loam or cobbly sandy loam where stone occupies 5 to 20% of the surface. Its thickness varies markedly depending upon the steepness of the slope.



Distance to soft and hard rock is similar to Louisburg stony loam. It is low in fertility and organic matter, and is very strongly acid (4.5 to 5.0 pH). It forms about 50% of the study area.

2. Gwinnett-Hiwassee-Mussella association characterized by well-drained soils with a dominantly dark-red, dusky-red, or red, clayey to loamy subsoil. These soils, all near the edge of the study area on relatively flat ground, is a mixture of soil types with soil thickness usually much thicker (6 to 8 inches), distance to soft and hard rock much greater (5 feet or more), yet similar in low fertility and organic matter. The soil is only moderately acid to circumneutral (5.1 to 5.5 pH). It forms only about 10% of the study area.

**Significance**

In the Piedmont, mafic and ultramafic rocks and their developed soils are generally assumed to be more circumneutral [pH near 7.0] than the soils formed from the silicic-felsic rock that predominate (Oakley, *et al* 1995). Nutrients are generally more available to plants in circumneutral soils as greater acidity disrupts the normal assimilation of nutrients. Because of this, the flora of Kennesaw Mountain is expected to include species associated with neutral and calcic soils more commonly found in the calcic areas to the northwest along with typical Piedmont species. The Cartersville Fault and the Valley and Ridge province is certainly close enough—16 miles northwest—for those species to find their way into suitable habitats. Numerous examples of this are included in the flora (See Figure 2). The assumption of circumneutrality may not be as straightforward as soil acidity.

A soil acid comparison of Kennesaw Mountain (pH 4.5 to 5.5) is nearly identical to Madison clay loam, a typical Piedmont soil derived from metasedimentary rock (pH 4.5 to 5.0). The general assumption about mafic soil circumneutrality may need to be questioned. These soil pH ranges are great enough in *both* soil types to have areas that are circumneutral.

A clue to what may be happening on Kennesaw Mountain is in the comparison of the amount of calcium, magnesium and iron available in the soil. Kennesaw Mountain has about 12 times the calcium and magnesium and 8 times the iron of typical Piedmont rock (from Figure 1). So while the acidity may be so similar to non-mafic rock as to be irrelevant except on a microhabitat level, the availability of the macronutrients by sheer quantity may be great enough to allow those plants usually found in more circumneutral or even calcic area to thrive (after Bowling 1997).

Using the list from Oakely, about 7.8% of the flora of Kennesaw Mountain has a moderate or higher mafic affinity and about 3.3% is high or very high. As the affinity for many of the plants is unknown, this represents at best an estimate of mafic affinity, but it shows a clear indication that Ken-

nesaw Mountain draws upon a flora somewhat different than the Piedmont, bearing out the expectation that some unusual plants would be found.

The checklist includes information from Weakley on mafic, calcic and neutral affinities which can be compared to Oakely.

Figure 2:  
Plants with Mafic Affinity in the Flora of Kennesaw Mtn  
(as taken and adapted from list in Oakely, *et al.* 1995)

<i>Acer floridanum</i>	moderate
<i>Anemone virginiana</i>	moderate
<i>Boechnera canadensis</i>	moderate
<i>Boechnera missouriensis</i>	moderate
<i>Asimina triloba</i>	moderate
<i>Blephilia ciliata</i>	high
<i>Carya caroliniae-septentrionalis</i>	moderate
<i>Celtis tenuifolia</i>	high
<i>Cercis canadensis</i>	moderate
<i>Cheilanthes lanosa</i>	moderate
<i>Corydalis flavula</i>	moderate
<i>Desmodium glutinosum</i>	high
<i>Hexaletris spicata</i>	very high
<i>Houstonia tenuifolia</i>	moderate
<i>Hypericum denticulatum</i>	moderate
<i>Isoetes piedmontana</i>	uncertain
<i>Juniperus virginiana</i>	moderate
<i>Lathyrus venosus</i>	high
<i>Liatris squarrosa</i>	moderate
<i>Liatris squarrulosa</i>	high
<i>Lithospermum canescens</i>	very high
<i>Lysimachia tonsa</i>	uncertain
<i>Manfreda virginica</i>	moderate
<i>Matelea decipiens</i>	high
<i>Ostrya virginiana</i>	moderate
<i>Ptelea trifoliata</i>	high
<i>Salvia urticifolia</i>	high
<i>Smilax hispida</i>	moderate
<i>Tragia urticifolia</i>	high
<i>Trichostema setaceum</i>	very high
<i>Ulmus rubra</i>	moderate
<i>Zanthoxylum americanum</i>	*high

very high: species always or nearly always found on circumneutral soils.  
high: species usually found on circumneutral soils but may be found occasionally on acidic soils  
moderate: species found on circumneutral soils more often than on acidic soils  
uncertain: species may have an affinity for circumneutral soils, but not certain  
 \* not included in Oakely, *et al.*

## HABITATS

The study area includes seven definable habitats (after Wharton 1978, whose numbers are enclosed by brackets {}). One is a hydric system [where visible surface water acts as a control on the vegetation] system and the others mesic [moist] to xeric [dry] systems. (See Appendix 4: Habitat Map.) Kennesaw Mountain has such steep and short sides as to prevent the development of well-formed watersheds for hydric systems and results in a strong mesic to xeric character.

### Hydric

{23} Mountain and Piedmont bogs, spring seep. No bogs are present, and the only spring seep is a poor example located off the Environmental Trail where *Platanthera clavellata*, green woodland orchid, occurs. This habitat type is located at the heads of drainages below the steep slopes where seeps develop a black, highly organic soil that is nearly always wet and often has sphagnum moss. They are more common along the Brevard fault zone, six miles south; and on Blackjack Mountain, five miles east.

### Xeric to Mesic

{76} Rock Outcrops. (after Burbanck and Platt 1964) include:

- (1) mesophytic forested areas next to outcrops
- (2) ecotones between (1) and (3)
- (3) exposed rock surfaces
- (4) natural depressions containing soil
  - (a) *Diamorpha* community (soil depth <9 cm)
  - (b) lichen-annual herb community (soil depth 7 to 15 cm)
  - (c) annual-perennial herb community (soil depth 14-38 cm)
  - (d) herb-shrub community (soil depth 40-50 cm)
- (5) rock crevices
- (6) rubble heaps

Habitats (1), (2), (3), (5) and (6) occur as broad, steeply sloping outcrops on the southwest slopes of Pigeon Hill, Little Kennesaw Mountain, and the southeast slope of the saddle. There is the remains of a small quarry on the southeast flank of Big Kennesaw Mountain just below the mountain road above the west drainage of CCC Camp Creek

Habitats (5) and (6) occur as boulderfields on the summit of Pigeon Hill and Little Kennesaw Mountain, the upper slope of Saddle Creek, and roadcuts into the rock on the mountain road of Big Kennesaw Mountain. There are scattered areas of boulderfields under the forest canopy that do not fit these classifications along the northwest flank of the mountain, and just below the summit on the southeast flank above the mountain road..

Habitat (4) occurs only in three places with the best developed the two acre St. Mary's Outcrop where at least one solution pit occurs where *Amphianthus pusillus*, snorkelwort, has been found (see comments under Federally Listed plants).

The Burnt Hickory outcrop is about a quarter of an acre. Both have *Diamorpha* communities. A small flatrock outcrop occurs along the mountain road just east of the saddle parking area.

{75} Pine-hardwood xeric ridge and slope forests. A dry forest with rocky ridges and slopes with *Quercus prinus*, chestnut oak the dominant tree along with *Q. marilandica*, blackjack oak, and *Q. stellata*, post oak, and *Carya pallida*, sand hickory. This habitat grades into {65} and is difficult to draw a line between the two. It includes all the ridges and some of the slopes.

{65} Bluff, slope and ravine forests. Moister than {75}, the forest is not dominated by *Quercus prinus* but instead is mixed with other oaks (*Q. rubra*, northern red; *Q. coccinea*, scarlet; and *Q. alba*, white), and hickories (*Carya alba*, mockernut; *C. cordiformis*, bitternut; *C. caroliniana-septentrionalis*, southern shagbark). *Sanguinaria canadensis*, bloodroot, may be a typical indicator of this habitat (Bowling, personal communication), and it is abundant in the entrenchment area along the mountain trail. This habitat is virtually the entire southeast slope of the mountain, wrapping around both ends where it grades into {64}.

{64} Bluff and ravine forests of northern affinities. Often called mixed-mesophytic forests, in the south they are nearly always on steep, northern facing slopes. They are typified by having the greatest variety of forest trees with *Liriodendron tulipifera*, tuliptree, becoming the characteristic tree, although it is never the dominant tree. The understory will have plants with northern affinities such as *Pedicularis canadensis*, Canadian lousewort, found only in the boulderfields on the northwest slope of Big Kennesaw mountain under the forest canopy. Woodland ferns are far more common.

{72} Successional forest stages. (after Odum, 1971, see Figure 3: Oldfield Successional Stages) The vast majority of the Piedmont is "old field succession." The lower slopes of the entire mountain, generally below 1,200 feet elevation, are abandoned agricultural land in the third stage of succession. Both *Pinus taeda* and *P. virginiana* occur in dense stands in the earlier portion of the pine forest successional stage. A particularly large area of pines is found on the slope and swale where Pigeon Hill meets Little Kennesaw Mountain.

Figure 3: Old Field Successional Stages

1<sup>st</sup> is fields with crabgrass, horseweed and aster lasting about three years from abandonment  
 2<sup>nd</sup> is a grass-shrub stage with broomsedge, 3 years+  
 3<sup>rd</sup> is pine forest lasting 25 to 100 years  
 4<sup>th</sup> to an oak-hickory climax forest reached in 150 years or more

\* Manipulated lands. Mowed fields, roadsides, plantings around buildings. The majority of alien species are found in this habitat. Mowed fields are maintained where farmland

was during the Civil War in an attempt to maintain the area as it was then and provide vistas of the mountain. A number of plants native to other parts of Georgia are found as nonnative plantings, such as *Magnolia grandiflora*, southern magnolia, *Malus angustifolia*, southern crabapple, *Pinus strobus*, white pine, and *Quercus lyrata*, overcup oak.

#### RARE AND UNUSUAL PLANTS

Figure 4:

Status Rankings

G1, S1 = critically imperiled globally/in state because of extreme rarity, 5 or fewer occurrences.

G2, S2 = imperiled globally/in state because of rarity, 6 to 20 occurrences.

G3, S3 = rare or uncommon globally/in state, rare and local throughout range or in a special habitat, on the order of 21 to 100 occurrences.

G4, S4 = apparently secure globally/in state.

G5, S5 = demonstrably secure globally/in state.

? = uncertain status

Q = question or problem with taxonomy

T = rank for taxa below species level

H = historical record (not seen in 20+ years)

E = exotic species

P = potentially in the flora but not currently known

#### Federally Listed (USFWS 1997)

*Amphianthus pusillus*, poolsprite, G2, S2 (see Figure 4), is the only federally listed threatened species on the flora. It was found in a small vernal pool at the St. Mary's rock outcrop, along the boundary of the National Park. In 1990 it both flowered and fruited. In 1991 it flowered. Fifteen basal rosettes were found in 2006, twice that in 2008 and perhaps as many as 100 in 2009. The pool is subjected to frequent abuse by children playing on the rocks. In 1990 through 1993 the lot abutting the boundary and including part of the outcrop was vacant, but a house was built on the lot in 1994. The rock area is not suitable for building, but is totally unprotected except by the current owner. This population is of dubious natural authenticity (Allison, personal communication). Poolsprite is known only from the Piedmont flatrock granite and gneiss outcrops from Alabama through Georgia to South Carolina where solution pits form that are less than a foot deep, entirely rock-rimmed and have about an inch of soil. (See Habitats, rock outcrops).

#### State Protected (Patrick *et al* 1995)

*Draba aprica*, open ground whitlow grass, G3, S1S2, and poolsprite are the only state listed endangered species on the flora. It is found in significant numbers near and under eastern red cedar trees (*Juniperus virginiana*) where a somewhat flat pan collects the detritus of the cedar trees and a thin soil develops. This habitat occurs only on Little Kennesaw Mountain where six stands of a single population of plants

was monitored in 1993-1994 by P.E. Bostick, assisted by this author, for The Nature Conservancy (Bostick 1994 and Jordan 1994). Kennesaw Mountain is the type locality of this plant more common to the Ozark Plateau of Arkansas and southern Missouri. The Georgia and South Carolina populations are extreme disjuncts.

#### Georgia Tracking List of Special Concern Plants

*Arabis missouriensis*, green rockcress, G4G5, S2, was monitored (Bostick 1994). It is common (300 to 400 plants) on the northwest slope of Little Kennesaw Mountain, the saddle and adjacent areas of Big Kennesaw Mountain. This population, along with those in Columbia and McDuffie counties on granite/gneiss outcrops are disjuncts. The main range is: southwest Maine to eastern New York south to eastern Pennsylvania; Michigan; and, Missouri to Oklahoma.

*Pycnanthemum curvipes*, Stone Mountainmint, G3, S2, is the dominant mint on the mountain and is nearly ubiquitous in thin woods. At least 2,000 plants occur in the park (Bostick 1994). The type was collected by J.K. Small on Stone Mountain (Chambers & Hamer 1992, Grant & Epling 1943), yet the common name in the management plan is "Tennessee mountain-mint" (NPS2, Ranger, 1990). It is found in Cobb, Fulton and DeKalb counties in Georgia; four counties of the central basin and Polk County, Tennessee; three east Alabama counties; and Buncombe County, North Carolina.

*Zanthoxylum americanum*, common prickly ash, G5, S1, is found in Cobb, DeKalb, and Henry counties in the metro Atlanta area, and Jenkins county in the Savannah River drainage. It was monitored (Bostick 1994). This common northern species is rarely found in widely scattered localities in the southeast at the periphery of its range. It occurs in two stoloniferous clumps (genets) along the mountain trail just below the parking lot (~600 ramets) and along the FAA tower access road above the parking lot (~200 ramets). All the plants appear to be male and no fruit has been observed by P.E. Bostick or me.

#### Georgia Plant Watch List:

Plants needing additional documentation to determine conservation status

*Castanea dentata*, American chestnut, G4, S3, is found frequently as stump sprouts at mid slope on Big and Little Kennesaw Mountain. These are the efforts of the surviving rootstocks of trees that managed to survive—in drastically impoverished condition—the Chestnut blight. It formerly was the characteristic tree of the eastern deciduous forest. The watch is for plants that produce fruits. No fruits have been observed on the mountain.

*Corydalis flavula*, yellow fumewort, G5, S3?, is found only at the base of a rock wall on the northwest side of the

crest of Little Kennesaw Mountain. Its only other Georgia locations are in Gordon, Bartow and Seminole counties. The main range is from Connecticut west to southern Ontario and Minnesota and south to Virginia and Tennessee and west to Louisiana and eastern Kansas.

*Ipomopsis rubra*, standing cypress, G4G5, S3, has populations in only nine or ten Georgia counties, and scattered localities in North and South Carolina, Florida and Mississippi on sandhills and riverbanks of the coastal plain, and is common near the summits of Big and Little Kennesaw Mountain. A population along the mountain road at the rock cut near the saddle persists despite constant “weed-whacking” by Park Service maintenance personnel. It is a strikingly beautiful plant, both just before flowering and in flower.

*Lonicera flava*, yellow honeysuckle, G5?, S3?, is found only at the summit of Pigeon Hill among the boulders. It is more common in the Valley and Ridge and Cumberland Plateau of northwest Georgia, and occurs in scattered locations in Piedmont counties. It ranges from North Carolina, Georgia, Alabama to Arkansas and Oklahoma.

*Teucrium canadense* var. *virginicum*, Canada germander, G5TU, SR, is found only on the saddle in the southern swale between the saddle hump and Little Kennesaw Mountain. A plant normally found in low grounds and streambanks, this is a very unusual location and may indicate a small perched water table. It is severely threatened by *Lonicera japonica* and *Ligustrum sinense*. Far more common in the Carolinas, it is probably at the limit of its range in this area.

#### OTHER NOTABLES

I discovered *Alliaria petiolaris*, garlic mustard, just below the summit parking lot in April, 1989 as a small group of flowering plants in an area about five feet square. The plant has colonized the entire trailside from the parking lot to just below the first switchback. This pernicious weed is spreading rapidly as it flowers and fruits profusely. This is the only known location in Georgia. On the mountain trail slope, it is rapidly approaching the weed status of *Ligustrum sinense*, Chinese privet. It has the potential to be a serious dislocator of the native plants. An informal group from the Natural Areas Association is in the beginning stages of developing a study for biological control of garlic mustard (Blossey, 1997). In August 1997 I collected a cup of seeds to be used in this study.

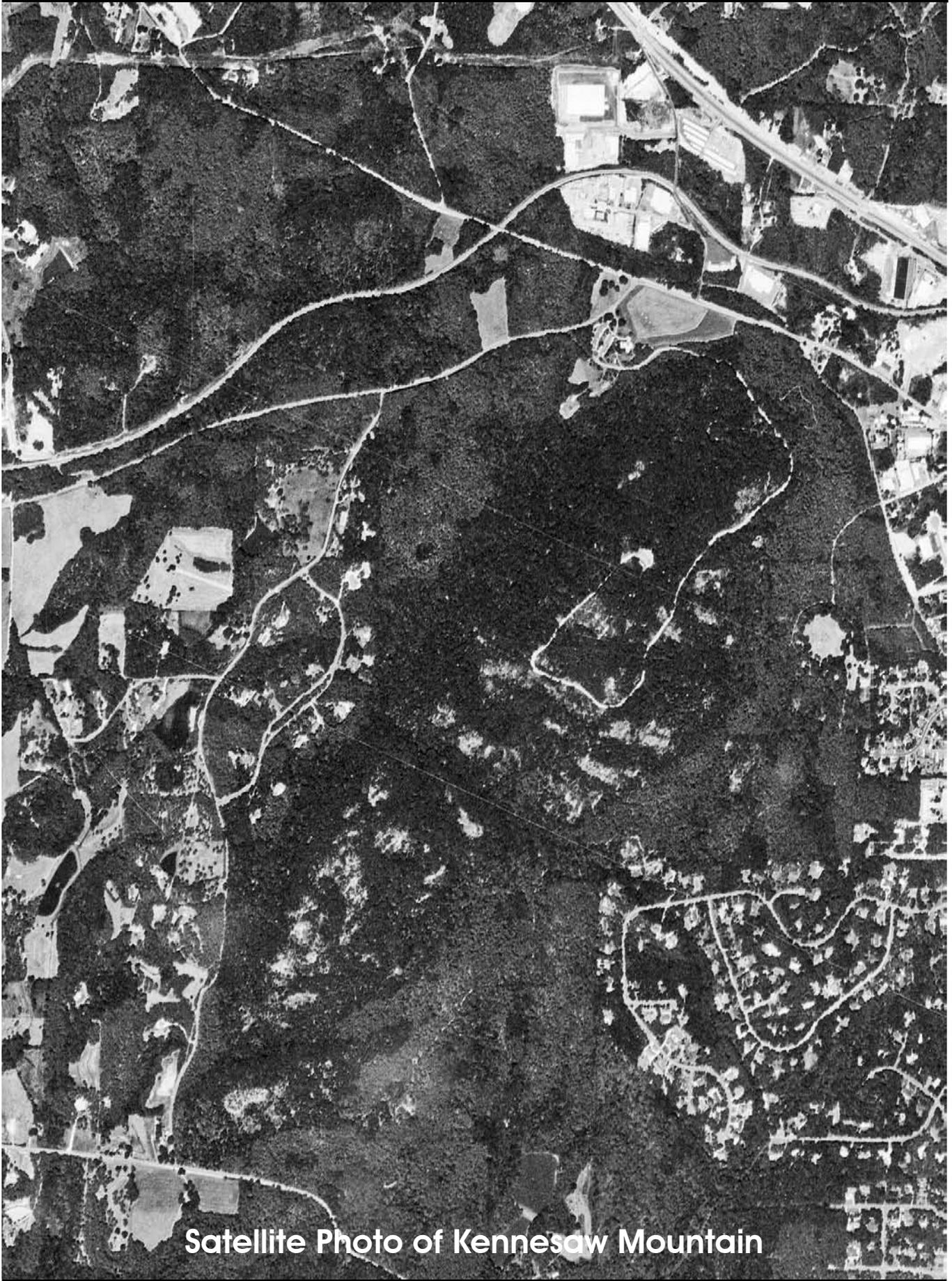
#### POTENTIALLY OCCURRING PLANTS

*Nestronia umbellula*, Indian Olive, G4, S2 and a State Protected Plant, is a potentially occurring species in the mature piney areas where *Vaccinium* species occur. Collections were made in Cobb County on Mt. Wilkinson about twelve miles south in similar habitat to that of Kennesaw Mountain.

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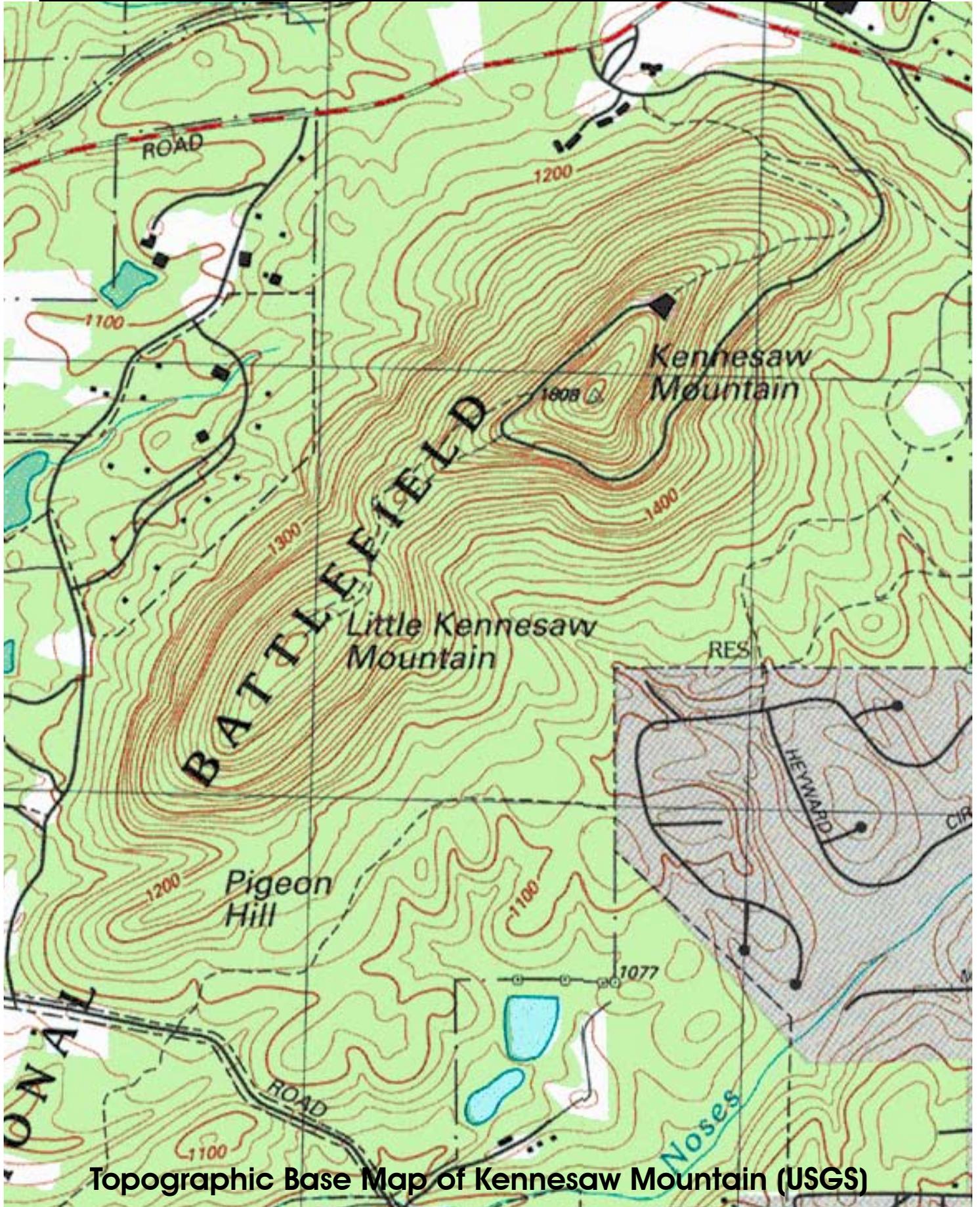
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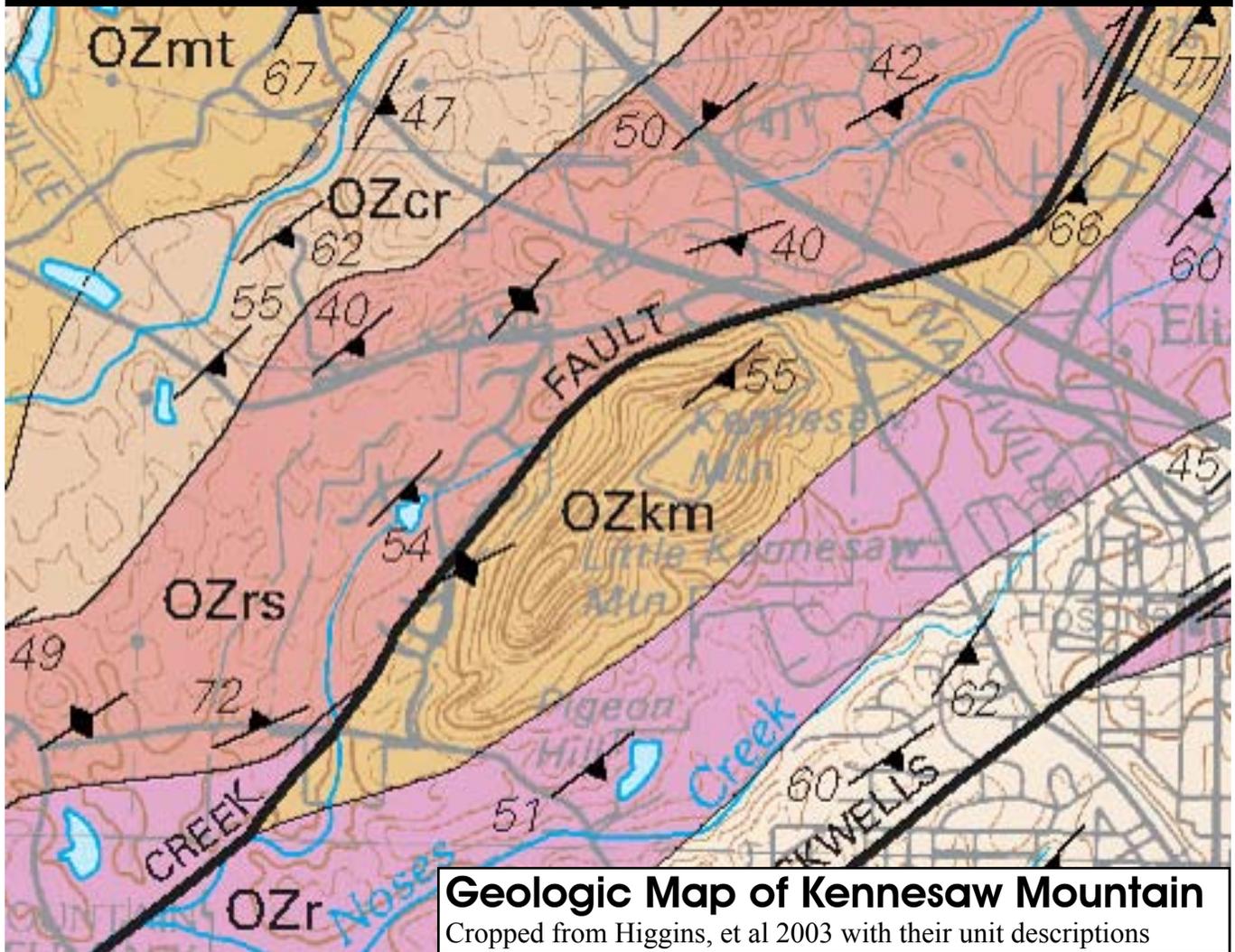


Satellite Photo of Kennesaw Mountain

The Vascular Flora of Kennesaw Mountain



Topographic Base Map of Kennesaw Mountain (USGS)



## Geologic Map of Kennesaw Mountain

Cropped from Higgins, et al 2003 with their unit descriptions

**OZkm Informal migmatite of Kennesaw Mountain** (Middle Ordovician? to Late Proterozoic?)—Massive, light-gray to nearly white, medium-grained, potassium feldspar-poor, biotite-quartz-plagioclase gneiss identical to metatrandjemite gneisses (OZmt) and Villa Rica Gneiss (OZv), but with abundant xenoliths of Ropes Creek Metabasalt (OZr)

**OZr Ropes Creek Metabasalt**—Fine- to medium-grained, dark-green to greenish-black, ocher-weathering, massive to finely layered, locally laminated, locally pillowed, locally chloritic, commonly garnetiferous, locally magnetite-bearing, generally pyrite-bearing, generally epidotic, hornblende-plagioclase and plagioclase-hornblende amphibolites with insignificant amounts (generally less than a very small fraction of a percent) of fine- to medium-grained, generally amphibole-bearing granofels. The final weathering product of the amphibolites is a characteristic dark-red, clayey soil. Thinly layered, medium-grained, magnetite quartzite (OZmq), in units about 0.3 to 6 m thick, is common in and characteristic of the Ropes Creek Metabasalt.

**OZrs Spheroidally weathering amphibolite**—Dark-green, medium- to coarse-grained, salt-and-pepper textured, massive and flaggy, spheroidally weathering amphibolite. Holds up low ridges and knobs. Weathers to a dark-red soil with residual cobbles and boulders or flags.

**OZcr Crider Gneiss**—Gray to nearly white, massive to slabby, medium- to coarse-grained, poorly to well-foliated biotite muscovite-quartz-plagioclase gneiss that is locally contorted and gener-

ally weathers to a light-tan to dark-yellowish-tan soil containing corestones of gneiss. The gneiss commonly is found as residual boulders where the unit is deeply weathered.

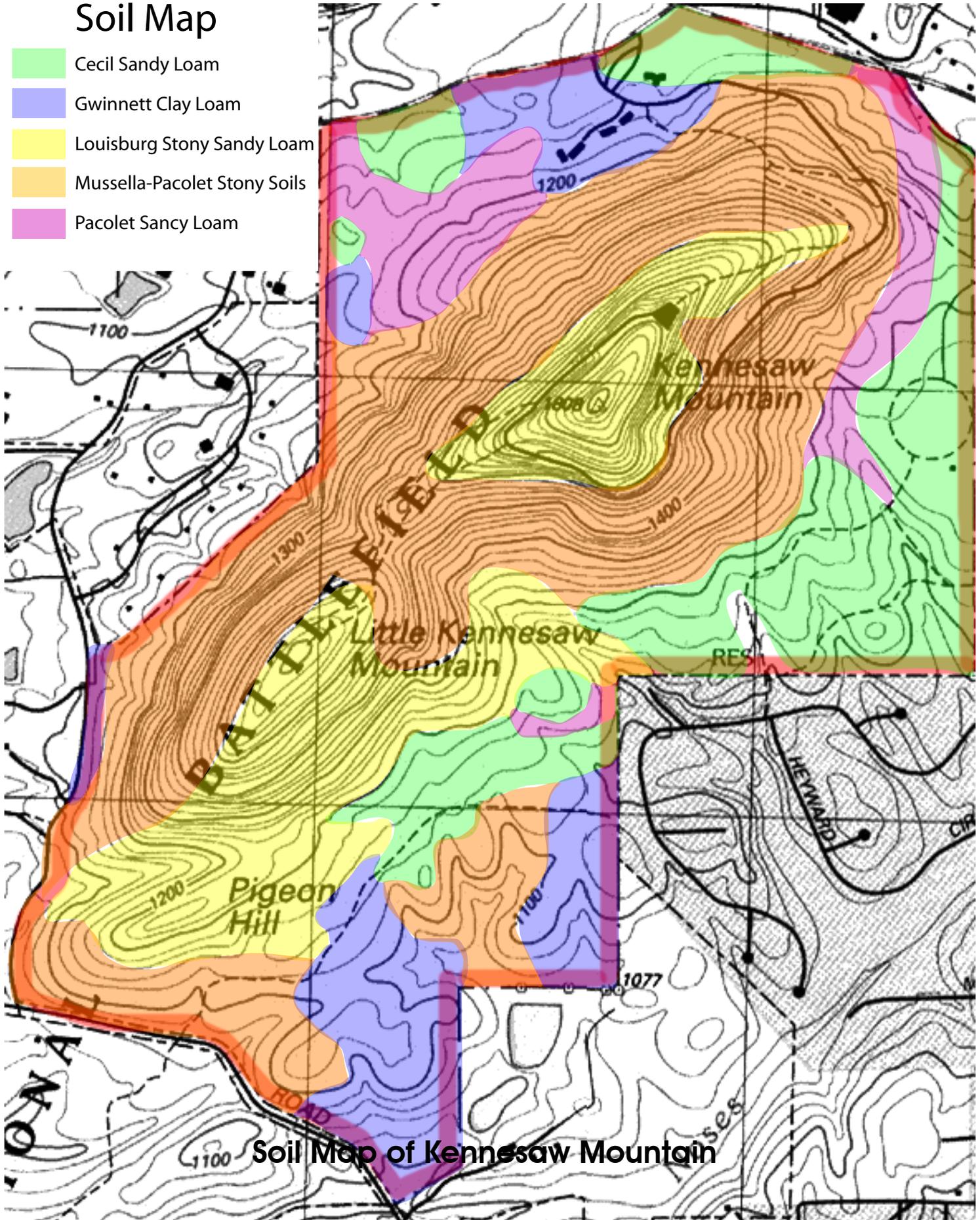
**OZmt Unnamed metatrandjemite gneisses**—A complex of several varieties of potassium feldspar-poor gneisses and metatrandjemites. The most common variety, which probably makes up 85 to 90 percent of the unit, is identical to Villa Rica Gneiss. Other varieties include a coarse-grained, poorly foliated biotite (generally less than 2 percent)-quartz-plagioclase gneiss/granofels with minor amounts of a dark-green amphibole; and a biotite-quartz-plagioclase gneiss that weathers to a dark-pink saprolite. Fresh rocks are rare enough to be anomalous. Most structural measurements are on amphibolites within the gneisses.

**OZv Villa Rica Gneiss** (not on this map)—Light-gray to white, medium-grained, massive biotite-quartz-sodic plagioclase metatrandjemite; biotite is minor. Locally layered near contacts. Sea-floor pelites of the allochthonous oceanic assemblage locally have very large garnets for tens of meters from their contact with the Villa Rica Gneiss, but it is indeterminate whether or not the garnets are the result of contact metamorphism caused by intrusion of the plutonic protolith of the Villa Rica Gneiss. Tends to form pavement outcrops where poorly jointed. Has many xenoliths of Ropes Creek Metabasalt and, locally, xenoliths of ultramafic rocks. The ultramafic rocks occur in a linear fashion suggesting tectonic emplacement, but lack of exposure prevents determination of the nature of the gneiss between the ultramafic pods. Weathers to white soils that overlie pink to white clayey saprolites.

# The Vascular Flora of Kennesaw Mountain

## Soil Map

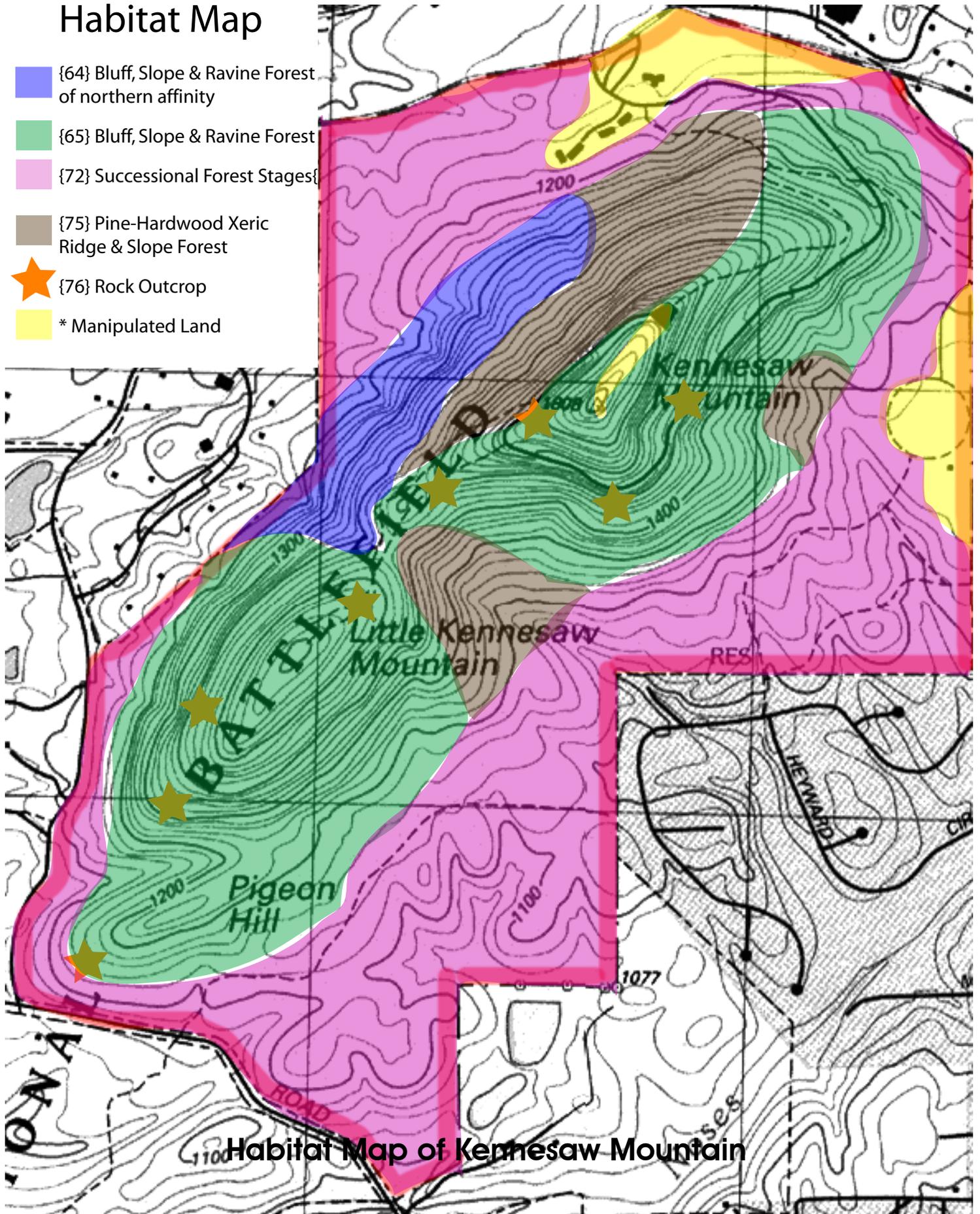
-  Cecil Sandy Loam
-  Gwinnett Clay Loam
-  Louisburg Stony Sandy Loam
-  Mussella-Pacolet Stony Soils
-  Pacolet Sancy Loam



Soil Map of Kennesaw Mountain

# Habitat Map

- {64} Bluff, Slope & Ravine Forest of northern affinity
- {65} Bluff, Slope & Ravine Forest
- {72} Successional Forest Stages
- {75} Pine-Hardwood Xeric Ridge & Slope Forest
- {76} Rock Outcrop
- \* Manipulated Land



Habitat Map of Kennesaw Mountain

# Checklist of the Flora of Kennesaw Mountain

By Group, Family, Genus. Taxonomy Follows Weakley, 2009

- \* = alien
- <sup>p</sup> = planted
- <sup>N</sup> = naturalized
- <sup>M</sup> = mafic affinity
- <sup>C</sup> = calcic affinity
- <sup>±</sup> = neutral affinity

## Ferns and Fern Allies

### ASPLENIACEAE Frank 1877 (Spleenwort Family)

<sup>C</sup> *Asplenium platyneuron* (Linnaeus) Britton, Sterns, & Poggenburg, ebony spleenwort

### BLECHNACEAE (C. Presl) Copeland 1947 (Deer Fern Family)

*Woodwardia areolata* (Linnaeus) T. Moore, netted chain fern

*Woodwardia virginica* (Linnaeus) J.E. Smith, Virginia chain fern

### DENNSTAEDTIACEAE Pichi Sermolli 1970 (Bracken Family)

*Pteridium aquilinum* (Linnaeus) Kuhn var. *latiusculum* (Desvaux) Underwood ex Heller, eastern bracken

### DRYOPTERIDACEAE Ching 1965 (Wood-fern Family)

*Athyrium asplenioides* (Michaux) A.A. Eaton, southern lady fern

*Dryopteris marginalis* (Linnaeus) A. Gray, marginal wood-fern

*Onoclea sensibilis* Linnaeus var. *sensibilis*, sensitive fern, bead fern

*Polystichum acrostichoides* (Michaux) Schott, Christmas fern

*Woodsia obtusa* (Sprengel) Torrey ssp. *obtusa*, Common Woodsia, blunt-lobed cliff fern

### ISOETACEAE Dumortier 1829 (Quillwort, Merlin's-grass)

*Isoetes piedmontana* (N.E. Pfeiffer) C.F. Reed, Piedmont quillwort

### OPHIOGLOSSACEAE (R. Brown) Agardh 1822 (Adder's-tongue Family)

*Botrypus virginianus* (Linnaeus) Holub, rattlesnake fern, sang-find

*Sceptridium biternatum* (Savigny) Lyon, southern grapefern

### OSMUNDACEAE Berchtold & J.C. Presl 1820 (Royal Fern Family)

*Osmunda cinnamomea* Linnaeus var. *cinnamomea*, cinnamon fern

*Osmunda regalis* Linnaeus var. *spectabilis* (Willdenow) A. Gray, royal fern

### POLYPODIACEAE Berchtold & J.C. Presl 1820 (Polypody Family)

*Pleopeltis polypodioides* (Linnaeus) E.G. Andrews & Windham ssp. *michauxiana* (Weatherby) E.G. Andrews & Windham, resurrection fern, scaly polypody

### PTERIDACEAE Reichenbach 1837 (Maidenhair Fern Family)

*Cheilanthes lanosa* (Michaux) D.C. Eaton, hairy lip-fern

### SELAGINELLACEAE Willkomm 1861 (Spikemoss Family)

*Selaginella rupestris* (Linnaeus) Spring, rock spikemoss

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**THELYPTERIDACEAE Pichi Sermolli 1970 (Marsh Fern Family)**

*Phegopteris hexagonoptera* (Michaux) Fée, broad beech fern.

*Thelypteris noveboracensis* (Linnaeus) Nieuwland, New York fern

**Gymnosperms****CUPRESSACEAE Bartlett 1830 (Cypress Family)**

± *Juniperus virginiana* Linnaeus var. *virginiana*, eastern red cedar

**PINACEAE Lindley 1836 (Pine Family)**

*Pinus echinata* P. Miller, shortleaf pine, rosemary pine, yellow pine

<sup>P</sup> *Pinus strobus* Linnaeus, eastern white pine

*Pinus taeda* Linnaeus, loblolly pine, old field pine

*Pinus virginiana* P. Miller, Virginia pine, scrub pine, Jersey pine

**Dicotyledons****ACANTHACEAE Durande 1762 (Acanthus Family)**

*Ruellia caroliniensis* (J.F. Gmelin) Steudel, Carolina wild-petunia, common wild-petunia

**ADOXACEAE Trautvetter 1853 (Moschatel Family)**

*Sambucus canadensis* Linnaeus, common elderberry

*Viburnum acerifolium* Linnaeus, mapleleaf viburnum, dockmackie

*Viburnum prunifolium* Linnaeus, black haw, nannyberry

<sup>M</sup> *Viburnum rufidulum* Rafinesque, southern black haw

**ALTINGIACEAE Lindley 1846 (Sweet-gum Family)**

*Liquidambar styraciflua* Linnaeus, sweet gum, red gum

**ANACARDIACEAE Lindley 1830 (Cashew Family)**

<sup>M</sup> *Rhus aromatica* Aiton var. *aromatica*, fragrant sumac, squawbush

*Rhus copallinum* Linnaeus var. *copallinum*, winged sumac, flameleaf sumac

*Rhus glabra* Linnaeus, smooth sumac

*Toxicodendron pubescens* P. Miller, poison oak

*Toxicodendron radicans* (Linnaeus) Kuntze var. *radicans*, eastern poison ivy

**ANNONACEAE A.L. de Jussieu 1789 (Custard-apple Family)**

*Asimina parviflora* (Michaux) Dunal, small-flowered pawpaw, small-fruited pawpaw

*Asimina triloba* (Linnaeus) Dunal, common pawpaw, Indian-banana

**APIACEAE Lindley 1836 or UMBELLIFERAE A.L. de Jussieu 1789 (Carrot Family)**

*Angelica venenosa* (Greenway) Fernald, hairy angelica

*Chaerophyllum tainturieri* Hooker var. *tainturieri*, southern chervil

\* *Daucus carota* Linnaeus, Queen-Anne's-lace, carrot, wild carrot

*Oxyopolis rigidior* (Linnaeus) Rafinesque, cowbane, pig-potato

*Sanicula canadensis* Linnaeus var. *canadensis*, Canada sanicle, black snakeroot

*Sanicula marilandica* Linnaeus, Maryland sanicle

<sup>C</sup> *Thaspium chapmanii* (Coulter & Rose) Small (keys to *T. barbinode* in keys other than Small and Weakley, abundant on Little Kennesaw Mountain)

*Zizia aptera* (A. Gray) Fernald, heartleaf golden-Alexanders

**APOCYNACEAE A.L. de Jussieu 1789 (Dogbane Family)**

*Amsonia tabernaemontana* Walter var. *tabernaemontana*, wideleaf blue-stars

*Apocynum androsaemifolium* Linnaeus, spreading dogbane

*Apocynum cannabinum* Linnaeus, hemp dogbane, Indian-hemp

*Asclepias amplexicaulis* J.E. Smith, clasping milkweed

*Asclepias tuberosa* Linnaeus var. *tuberosa*, common butterfly-weed

<sup>M</sup> *Asclepias verticillata* Linnaeus, whorled milkweed

<sup>M</sup> *Matelea decipiens* (Alexander) Woodson, deceptive spiny pod

**AQUIFOLIACEAE Bartling 1830 (Holly Family)**

*Ilex opaca* Aiton var. *opaca*, American holly, Christmas holly

**ARALIACEAE A.L. de Jussieu 1789 (Ginseng Family)**

\* *Hedera helix* Linnaeus var. *helix*, common ivy, English ivy

**ARISTOLOCHIACEAE A. L. de Jussieu 1789 (Birthwort Family)**

*Hexastylis virginica* (Linnaeus) Small, Virginia heartleaf.

**ASTERACEAE Dumortier 1822 or COMPOSITAE Giseke 1792 (Aster)**

*Ageratina altissima* King & H.E. Robinson var. *altissima*, common white snakeroot, common milk-poison

*Ambrosia artemisiifolia* Linnaeus, ragweed

<sup>M</sup> *Ambrosia bidentata* Michaux, giant ragweed

*Antennaria plantaginifolia* (Linnaeus) Richardson, plantain pussytoes

*Arnoglossum atriplicifolium* (Linnaeus) H.E. Robinson, pale Indian-plantain

*Bidens bipinnata* Linnaeus, Spanish needles

*Bidens frondosa* Linnaeus, Devil's beggar-ticks

*Brickellia eupatorioides* (Linnaeus) Shinnars var. *eupatorioides*, eastern false-boneset

*Chrysogonum virginianum* Linnaeus var. *brevistolon* Nesom, Carolina green-and-gold

*Chrysopsis mariana* (Linnaeus) Elliott, Maryland golden-aster

\* *Cichorium intybus* Linnaeus, chicory, succory, blue-sailors

*Conoclinium coelestinum* (Linnaeus) Augustin de Candolle, mistflower, ageratum

*Conyza canadensis* (Linnaeus) Cronquist var. *canadensis*, common horseweed

*Coreopsis grandiflora* Hogg ex Sweet var. *grandiflora*, large-flowered coreopsis

*Coreopsis major* Walter var. *rigida* (Nuttall) F.E. Boynton, stiffleaf coreopsis

*Elephantopus carolinianus* Raeschel, leafy elephant's-foot

*Elephantopus tomentosus* Linnaeus, elephant's-foot

*Erechtites hieracifolia* (Linnaeus) Rafinesque ex Augustin de Candolle var. *hieracifolia*, fireweed

*Erigeron philadelphicus* Linnaeus var. *philadelphicus*, Philadelphia-daisy

*Erigeron pulchellus* Michaux var. *pulchellus*, Robin's-plantain

*Erigeron strigosus* Muhlenberg ex Willdenow var. *strigosus*, common rough fleabane

*Eupatorium compositifolium* Walter, coastal dog-fennel, Yankee-weed

*Eupatorium hyssopifolium* Linnaeus, hyssopleaf eupatorium

*Eupatorium perfoliatum* Linnaeus, boneset

*Eupatorium sessilifolium* Linnaeus var. *sessilifolium*, sessile-leaf eupatorium

\* *Helenium amarum* (Rafinesque) H. Rock var. *amarum*, bitterweed

*Helianthus atrorubens* Linnaeus, Appalachian sunflower

*Helianthus divaricatus* Linnaeus, spreading sunflower

*Helianthus giganteus* Linnaeus, tuberous sunflower, swamp sunflower

*Helianthus hirsutus* Rafinesque, hairy sunflower

*Helianthus microcephalus* Torrey & A. Gray, small-headed sunflower

*Helianthus resinusus* Small, resinous sunflower

*Hieracium paniculatum* Linnaeus, leafy hawkweed

*Hieracium venosum* Linnaeus, veiny hawkweed

\* *Hypochaeris radicata* Linnaeus, spotted cat's-ear

*Krigia dandelion* (Linnaeus) Nuttall, colonial dwarf-dandelion

*Krigia virginica* (Linnaeus) Willdenow, Virginia dwarf-dandelion  
*Lactuca canadensis* Linnaeus, American wild lettuce  
*Lactuca floridana* (Linnaeus) Gaertner, woodland lettuce  
 \* *Lactuca serriola* Linnaeus, prickly lettuce  
 \* *Leucanthemum vulgare* Lamarck, oxeye daisy, white daisy, common daisy, Marguerite  
*Liatris aspera* Michaux, rough blazing-star  
*Liatris pilosa* (Aiton) Willdenow, grass-leaved blazing star  
*Liatris spicata* (Linnaeus) Willdenow var. *spicata*, florist's gayfeather  
*Liatris squarrosa* (Linnaeus) Michaux var. *squarrosa*, blazing Star  
*Liatris squarrulosa* Michaux, blazing Star  
*Packera anonyma* (Wood) W.A. Weber & Á. Löve, Appalachian ragwort, Small's ragwort  
*Packera tomentosa* (Michaux) C. Jeffrey, woolly ragwort  
*Pityopsis graminifolia* (Michaux) Nuttall var. *latifolia* Fernald, grass-leaved golden-aster  
*Prenanthes serpentina* Pursh, Lion'-foot, gall-of-the-earth  
*Pseudognaphalium obtusifolium* (Linnaeus) Hilliard & Burt, fragrant rabbit tobacco  
*Rudbeckia hirta* Linnaeus var. *pulcherrima* Farwell, weedy black-eyed Susan  
*Rudbeckia laciniata* Linnaeus var. *laciniata*, common cutleaf coneflower, goldenglow  
*Sericocarpus asteroides* (Linnaeus) Britton, Sterns, & Poggenburg, rooted white-topped aster  
*Silphium asteriscus* Linnaeus var. *dentatum* (Elliott) Chapman, rosinweed  
*Silphium compositum* Michaux var. *compositum*, rosinweed  
*Solidago nemoralis* Aiton var. *nemoralis*, eastern gray goldenrod  
*Solidago odora* Aiton var. *odora*, licorice goldenrod  
*Solidago petiolaris* Aiton var. *petiolaris*  
*Solidago radula* Nuttall, rough goldenrod  
*Solidago rugosa* P. Miller var. *rugosa*, wrinkle-leaf goldenrod  
*Solidago speciosa* Nuttall var. *speciosa*, showy goldenrod  
 \* *Sonchus oleraceus* Linnaeus, common sow-thistle  
*Symphotrichum georgianum* (Alexander) Nesom, Georgia aster  
*Symphotrichum pilosum* (Willdenow) Nesom var. *pilosum*  
*Symphotrichum undulatum* (Linnaeus) Nesom  
 \* *Taraxacum officinale* G.H. Weber ex Wiggers, common dandelion  
*Vernonia flaccidifolia* Small, ironweed  
*Vernonia glauca* (Linnaeus) Willdenow, ironweed  
 \* *Youngia japonica* (Linnaeus) Augustin de Candolle, Asiatic hawk's-beard, Youngia

### BERBERIDACEAE A.L. de Jussieu 1789 (Barberry Family)

\* *Mahonia bealei* (Fortune) Carrière, Chinese mahonia, holly-grape  
 \* *Nandina domestica* Thunberg, nandina, sacred-bamboo

### BETULACEAE S.F. Gray 1821 (Birch Family)

*Alnus serrulata* (Aiton) Willdenow, tag alder, smooth alder, hazel alder  
*Carpinus caroliniana* Walter var. *virginiana* (Marshall) Fernald, inland American hornbeam  
*Ostrya virginiana* (P. Miller) K. Koch, American hop-hornbeam, ironwood

### BIGNONIACEAE A.L. de Jussieu 1789 (Bignonia Family)

*Bignonia capreolata* Linnaeus, cross-vine  
*Campsis radicans* (Linnaeus) Seemann ex Bureau, trumpet-creeper

### BORAGINACEAE A.L. de Jussieu 1789 (Borage Family)

<sup>c</sup> *Lithospermum canescens* (Michaux) Lehmann, hoary puccoon, Indian-paint

**BRASSICACEAE Burnett 1835 or CRUCIFERAE A.L. de Jussieu 1789 (Mustard Family)**

- \* *Alliaria petiolata* (Bieberstein) Cavara & Grande, garlic mustard, hedge garlic
- \* *Arabidopsis thaliana* (Linnaeus) Heynhold, mouse-ear cress
- \* *Barbarea verna* (P. Miller) Ascherson, early winter-cress
- <sup>M</sup> *Boechera canadensis* (Linnaeus) Al-Shehbaz, sicklepod, Canada rockcress
- <sup>M</sup> *Boechera missouriensis* (Greene) Al-Shehbaz, Missouri rockcress
- \* *Capsella bursa-pastoris* (Linnaeus) Medikus, Common shepherd's purse
- \* *Cardamine hirsuta* Linnaeus, hairy bittercress
- Cardamine parviflora* Linnaeus var. *arenicola* (Britton) O.E. Schulz, sand bittercress
- <sup>M</sup> *Draba aprica* Beadle, Flatrock Draba, open-ground whitlow-grass, sun-loving draba, granite whitlow-wort
- \* *Draba verna* Linnaeus, whitlow-grass
- Lepidium virginicum* Linnaeus var. *virginicum*, poor man's pepper
- \* *Sisymbrium officinale* (Linnaeus) Scopoli, hedge mustard
- \* *Thlaspi arvense* Linnaeus, field penny-cress, Frenchweed

**CACTACEAE A.L. de Jussieu 1789 (Cactus Family)**

- Opuntia humifusa* (Rafinesque) Rafinesque var. *humifusa*, eastern prickly-pear

**CALYCANTHACEAE Lindley 1819 (Sweet-shrub Family)**

- Calycanthus floridus* Linnaeus var. *glaucus* (Willdenow) Torrey & A. Gray, smooth sweet-shrub

**CAMPANULACEAE A.L. de Jussieu 1789 (Bellflower Family)**

- Campanula divaricata* Michaux, southern harebell, Appalachian bellflower
- Lobelia cardinalis* Linnaeus, cardinal flower
- Lobelia puberula* Michaux var. *puberula*
- Lobelia siphilitica* Linnaeus var. *siphilitica*, great blue lobelia
- Triodanis perfoliata* (Linnaeus) Nieuwland, Venus' looking-glass

**CANNABACEAE Endlicher 1827 (Hops Family)**

- <sup>C</sup> *Celtis laevigata* Willdenow, southern hackberry, sugarberry
- <sup>C</sup> *Celtis tenuifolia* Nuttall, dwarf hackberry, Georgia hackberry

**CAPRIFOLIACEAE A.L. de Jussieu 1789 (Honeysuckle Family)**

- Lonicera flava* Sims, yellow honeysuckle
- \* *Lonicera fragrantissima* Lindley & Paxton, sweet-breath-of-spring
- \* *Lonicera japonica* Thunberg, Japanese honeysuckle
- \* *Lonicera maackii* (Ruprecht) Maximowicz, Amur honeysuckle.

**CARYOPHYLLACEAE A.L. de Jussieu 1789 (Pink Family)**

- \* *Cerastium glomeratum* Thuillier, sticky mouse-ear
- Cerastium nutans* Rafinesque
- \* *Dianthus armeria* Linnaeus ssp. *armeria*, Deptford pink
- \* *Holosteum umbellatum* Linnaeus ssp. *umbellatum*, jagged chickweed
- Minuartia uniflora* (Walter) Mattfeld, sandwort
- \* *Saponaria officinalis* Linnaeus, soapwort, bouncing bet
- Silene antirrhina* Linnaeus, sleepy catchfly, farter-pink
- Silene stellata* (Linnaeus) Aiton f., starry campion, widow's-frill
- Silene virginica* Linnaeus, fire-pink
- \* *Stellaria media* (Linnaeus) Villars, common chickweed
- Stellaria pubera* Michaux, star chickweed, common starwort, giant chickweed, great Chickweed

**CELASTRACEAE R. Brown 1814 (Bittersweet Family)**

- Euonymus americanus* Linnaeus, strawberry-bush, heart's-a-bustin'-(with-love)

*Euonymus obovatus* Nuttall, running strawberry-bush

### CHENOPODIACEAE Ventenat 1799 (Goosefoot Family)

*Chenopodium album* Linnaeus, lamb's-quarters, pigweed

### CISTACEAE A.L. de Jussieu 1789 (Rockrose Family)

*Lechea racemulosa* Michaux, pinweed

*Lechea tenuifolia* Michaux, pinweed

### CONVOLVULACEAE A.L. de Jussieu 1789 (Morning Glory Family)

*Cuscuta pentagona* Engelman, dodder

*Ipomoea coccinea* Linnaeus, scarlet creeper, red morning-glory

*Ipomoea hederacea* Jacquin, ivyleaf morning-glory

*Ipomoea lacunosa* Linnaeus, white morning-glory

*Ipomoea pandurata* (Linnaeus) G.F.W. Meyer, wild sweet potato, manroot, man-of-the-earth

\* *Ipomoea purpurea* (Linnaeus) Roth, common morning-glory

### CORNACEAE (Berchtold & J. Presl) Dumortier 1829 (Dogwood Family)

*Cornus florida* Linnaeus, flowering dogwood

### CRASSULACEAE DC. 1825 (Stonecrop Family)

*Diamorpha smallii* Britton ex Small, elf-orpine

### EBENACEAE Gürcke 1891 (Ebony Family)

*Diospyros virginiana* Linnaeus, American persimmon

### ELAEAGNACEAE A.L. de Jussieu 1789 (Oleaster Family)

\* *Elaeagnus pungens* Thunberg, autumn silverberry

\* *Elaeagnus umbellata* Thunberg var. *parvifolia* (Royle) Schneider, spring silverberry

### ERICACEAE A.L. de Jussieu 1789 (Heath Family)

*Chimaphila maculata* (Linnaeus) Pursh, pipsissewa, striped wintergreen

*Gaylussacia dumosa* (Andrews) Torrey & A. Gray var. *dumosa*, southern dwarf huckleberry

*Hypopitys monotropa* Crantz, pinesap

<sup>P</sup> *Kalmia latifolia* Linnaeus, mountain laurel, ivy, calico-bush

*Oxydendrum arboreum* (Linnaeus) Augustin de Candolle, sourwood, sorrel-tree

*Rhododendron calendulaceum* (Michaux) Torrey, flame azalea

*Rhododendron canescens* (Michaux) Sweet, Piedmont azalea, southern pinxterbloom azalea, wild azalea

*Rhododendron periclymenoides* (Michaux) Shinnars, wild azalea, pinxterflower, pinxterbloom azalea, election pink

<sup>M</sup> *Vaccinium arboreum* Marshall, farkleberry, sparkleberry

*Vaccinium corymbosum* Linnaeus, smooth highbush flueberry

*Vaccinium pallidum* Aiton, hillside blueberry, dryland blueberry

<sup>M</sup> *Vaccinium stamineum* Linnaeus var. *stamineum*, common deerberry

### EUPHORBIACEAE A.L. de Jussieu 1789 (Spurge Family)

*Acalypha gracilens* A. Gray, shortstalk copperleaf

*Acalypha virginica* Linnaeus, Virginia copperleaf

\* *Croton glandulosus* Linnaeus var. *septentrionalis* Müller of Aargau, doveweed, tooth-leaved croton, sand croton

*Croton willdenowii* Webster, glade rushfoil, outcrop fushfoil, willdenow's croton

*Euphorbia corollata* Linnaeus, eastern flowering spurge

<sup>M</sup> *Tragia urticifolia* Michaux, nettleleaf noseburn

**FABACEAE Lindley 1836 or LEGUMINOSAE A.L. de Jussieu 1789 (Legume Family)**

- \* *Albizia julibrissin* Durazzini, mimosa, silktree
- Amorpha fruticosa* Linnaeus, tall indigo-bush
- Amphicarpaea bracteata* (Linnaeus) Fernald var. *bracteata*, hog-peanut
- Baptisia alba* (Linnaeus) Ventenat, thick-pod white wild indigo
- Centrosema virginianum* (Linnaeus) Benthams, spurred butterfly pea
- <sup>c</sup> *Cercis canadensis* Linnaeus var. *canadensis*, eastern redbud
- Chamaecrista fasciculata* (Michaux) Greene var. *fasciculata*, common partridge-pea
- Chamaecrista nictitans* (Linnaeus) Moench var. *nictitans*, common sensitive-plant
- Clitoria mariana* Linnaeus var. *mariana*, butterfly pea
- Desmodium canescens* (Linnaeus) Augustin de Candolle, hoary tick-trefoil
- Desmodium glutinosum* (Muhlenberg ex Willdenow) A. Wood, heartleaf tick-trefoil, clusterleaf tick-trefoil
- Desmodium laevigatum* (Nuttall) Augustin de Candolle
- Desmodium nudiflorum* (Linnaeus) Augustin de Candolle, naked rick-trefoil
- Desmodium nuttallii* (Schindler) Schubert
- Gleditsia triacanthos* Linnaeus, honey locust
- Lathyrus venosus* Muhlenberg ex Willdenow, forest pea, bush vetch
- \* *Lespedeza cuneata* (Dumont-Cours.) G. Don, sericea lespedeza, Chinese lespedeza
- Lespedeza violacea* (Linnaeus) Persoon, sand lespedeza
- Lespedeza virginica* (Linnaeus) Britton, Virginia lespedeza
- \* *Medicago lupulina* Linnaeus, Black Medick, tellow trefoil
- \* *Melilotus officinalis* (Linnaeus) Pallas, yellow melilot, yellow sweetclover, ribbed relilot
- Mimosa microphylla* Dryander, eastern sensitive-brier
- \* *Pueraria montana* (Loureiro) Merritt var. *lobata* (Willdenow) van der Maesen & S. Almeida, kudzu
- Rhynchosia tomentosa* (Linnaeus) Hooker & Arnott var. *tomentosa*, snoutbean
- Robinia pseudoacacia* Linnaeus, black locust
- Strophostyles helvula* (Linnaeus) Elliott, annual sand bean
- Stylosanthes biflora* (Linnaeus) Britton, Sterns, & Poggenburg, pencil-flower
- Tephrosia virginiana* (Linnaeus) Persoon, Virginia goat's-rue
- \* *Trifolium campestre* Schreber, hop clover
- \* *Trifolium pratense* Linnaeus, red clover
- \* *Trifolium repens* Linnaeus, white clover, Dutch clover, ladino clover
- Vicia caroliniana* Walter, pale vetch, wood vetch, Carolina vetch
- \* *Vicia sativa* Linnaeus ssp. *nigra* (Linnaeus) Ehrhart, narrowleaf vetch
- \* *Vicia sativa* Linnaeus ssp. *sativa*, common vetch
- \* *Vicia villosa* Roth ssp. *villosa*, hairy vetch, fodder vetch

**FAGACEAE Dumortier 1829 (Beech Family)**

- Castanea dentata* (Marshall) Borkhausen, American chestnut
- Fagus grandifolia* Ehrhart var. *caroliniana* (Loudon) Fernald & Rehder, white beech, American beech
- Quercus alba* Linnaeus, white oak
- Quercus coccinea* Muenchhausen, scarlet oak
- Quercus falcata* Michaux, Spanish oak, southern red oak
- <sup>p</sup> *Quercus lyrata* Walter, overcup oak
- Quercus marilandica* Muenchhausen var. *marilandica*, blackjack oak
- Quercus montana* Willdenow, rock chestnut oak
- Quercus nigra* Linnaeus, water oak, paddle oak
- <sup>p</sup> *Quercus phellos* Linnaeus, willow oak
- Quercus rubra* Linnaeus var. *rubra*, red oak, northern red oak
- Quercus stellata* Wangenheim, post oak
- Quercus velutina* Lamarck, black oak

**FUMARIACEAE Augustin de Candolle 1821 (Fumitory Family)**

- <sup>m</sup> *Corydalis flavula* (Rafinesque) Augustin de Candolle, short-spurred corydalis, yellow fumewort

**GERANIACEAE A.L. de Jussieu 1789 (Geranium Family)**

*Geranium carolinianum* Linnaeus var. *carolinianum*, southern Carolina crane's-bill

\* *Geranium molle* Linnaeus, dove's-foot crane's-bill

**HYDRANGEACEAE Dumortier 1829 (Hydrangea Family)**

*Decumaria barbara* Linnaeus, climbing hydrangea, woodvamp

*Hydrangea arborescens* Linnaeus, smooth hydrangea

<sup>M</sup> *Philadelphus hirsutus* Nuttall, hairy mock-orange, Cumberland mock-orange

**HYPERICACEAE A.L. de Jussieu 1789 (St. Johns-wort Family)**

*Hypericum crux-andreae* (Linnaeus) Crantz, St. Andrew's cross, St. Peter's-wort

*Hypericum denticulatum* Walter, coppery St.-John's-wort

*Hypericum gentianoides* (Linnaeus) Britton, Sterns, & Poggenburg, Pineweed, orange-grass

*Hypericum hypericoides* (Linnaeus) Crantz, St. Andrew's cross

*Hypericum punctatum* Lamarck, spotted St.-John's-wort

**ITEACEAE J. Agardh 1858 (Sweetspire Family)**

*Itea virginica* Linnaeus, Virginia-willow, sweetspire, rassel-white

**JUGLANDACEAE A. Richard ex Kunth 1824 (Walnut Family)**

*Carya alba* (Linnaeus) Nuttall ex Elliott, mockernut hickory, white hickory

<sup>M</sup> *Carya caroliniae-septentrionalis* (Ashe) Engler & Graebner, Carolina shagbark hickory, Carolina hickory, southern shagbark hickory

*Carya cordiformis* (Wangenheim) K. Koch, bitternut hickory

*Carya glabra* (P. Miller) Sweet var. *glabra*, pignut hickory

*Carya pallida* (Ashe) Engler & Graebner, sand hickory, pale hickory

*Juglans nigra* Linnaeus, black walnut

**LAMIACEAE Lindley 1836 or LABIATAE A.L. de Jussieu 1789 (Mint Family)**

<sup>±</sup> *Blephilia ciliata* (Linnaeus) Benthams, woodmint, pagoda-plant

<sup>C</sup> *Collinsonia canadensis* Linnaeus, richweed, northern horsebalm

\* *Lamium amplexicaule* Linnaeus var. *amplexicaule*, henbit, henbit dead-nettle

*Monarda fistulosa* Linnaeus var. *mollis* (Linnaeus) Benthams, eastern bergamot

\* *Prunella vulgaris* Linnaeus var. *vulgaris*, Eurasian self-heal

<sup>M</sup> *Pycnanthemum curvipes* (Greene) E. Grant & Epling, Tennessee mountain-mint, Stone Mountain mountain-mint

*Pycnanthemum muticum* (Michaux) Persoon

*Pycnanthemum tenuifolium* Schrader

*Salvia azurea* Michaux ex Lamarck var. *azurea*, zzure sage

*Salvia lyrata* Linnaeus, lyreleaf sage

<sup>M</sup> *Salvia urticifolia* Linnaeus, nettle-leaf sage

*Scutellaria elliptica* Muhlenberg ex Sprengel var. *hirsuta* (Short & Peter) Fernald, skullcap

*Scutellaria incana* Biehler var. *punctata* (Chapman) C. Mohr, skullcap

*Scutellaria integrifolia* Linnaeus, skullcap

*Teucrium canadense* Linnaeus, germander

*Trichostema dichotomum* Linnaeus, common blue curls

*Trichostema setaceum* Houttuyn, narrowleaf blue curls

**LAURACEAE A.L. de Jussieu 1789 (Laurel Family)**

<sup>C</sup> *Lindera benzoin* (Linnaeus) Blume var. *pubescens* (Palmer & Steyermark) Rehder, hairy northern spicebush

*Sassafras albidum* (Nuttall) Nees, sassafras

**LENTIBULARIACEAE Richard 1808 (Bladderwort Family)**

*Utricularia subulata* Linnaeus, Slender Bladderwort, zigzag bladderwort

**LINACEAE DC. ex Gray 1821 (Flax Family)**

*Linum virginianum* Linnaeus, Virginia yellow flax

**MAGNOLIACEAE A.L. de Jussieu 1789 (Magnolia Family)**

*Liriodendron tulipifera* Linnaeus var. *tulipifera*, tulip-tree, yellow poplar, whitewood

<sup>N</sup> *Magnolia grandiflora* Linnaeus, southern magnolia, bull bay

**MALVACEAE A.L. de Jussieu 1789 (Mallow Family)**

\* *Sida spinosa* Linnaeus, Prickly Sida, prickly-mallow, false-mallow

**MENISPERMACEAE A.L. de Jussieu 1789 (Moonseed Family)**

*Cocculus carolinus* (Linnaeus) A.P. deCandolle, coralbeads, Carolina moonseed, snailseed, red moonseed

**MORACEAE Lindley 1847 (Mulberry Family)**

\* *Maclura pomifera* (Rafinesque) C.K. Schneider, osage-orange, bow-wood, bois-d'arc, dedge-apple

*Morus rubra* Linnaeus, red mulberry

**MYRSINACEAE R. Brown 1810 (Myrsine Family)**

<sup>C</sup> *Lysimachia tonsa* (Wood) Wood ex Pax & R. Knuth, southern loosestrife, Appalachian loosestrife

**NYSSACEAE A.L. de Jussieu ex Dumortier 1829 (Tupelo Family)**

*Nyssa sylvatica* Marshall, sour gum, black bum, pepperidge

**OLEACEAE Hoffmannsegg & Link 1813 (Olive Famil**

*Chionanthus virginicus* Linnaeus, fringe-tree, old man's beard

<sup>C</sup> *Fraxinus americana*, White Ash, American ash

\* *Ligustrum sinense* Loureiro, Chinese privet

**ONAGRACEAE A.L. de Jussieu 1789 (Evening-primrose Family)**

*Gaura biennis* Linnaeus, Biennial Gaura, northeastern gaura

*Ludwigia alternifolia* Linnaeus, alternate-leaf deedbox

*Oenothera biennis* Linnaeus, common evening-primrose

*Oenothera laciniata* Hill, cutleaf evening-primrose

**OROBANCHACEAE Ventenat 1799 (Broomrape Family)**

*Agalinis purpurea* (Linnaeus) Pennell

*Agalinis tenuifolia* (Vahl) Rafinesque var. *tenuifolia*

*Aureolaria flava* (Linnaeus) Farwell var. *flava*, eastern smooth oak-leach

*Aureolaria virginica* (Linnaeus) Pennell, downy oak-leach, Virginia oak-leach

*Orobanche uniflora* Linnaeus, one-flowered cancer-root.

*Pedicularis canadensis* Linnaeus, eastern lousewort, wood-betony

**OXALIDACEAE R. Brown 1818 (Wood-sorrel Family)**

*Oxalis grandis* Small, great yellow wood-sorrel

*Oxalis stricta* Linnaeus, common yellow wood-sorrel

*Oxalis violacea* Linnaeus, violet wood-sorrel

**PAPAVERACEAE A.L. de Jussieu 1789 (Poppy Family)**

*Sanguinaria canadensis* Linnaeus, bloodroot, red puccoon

**PASSIFLORACEAE A.L. de Jussieu ex Kunth 1817 (Passionflower Family)**

*Passiflora incarnata* Linnaeus, Maypops

*Passiflora lutea* Linnaeus var. *lutea*, yellow passionflower

**PAULOWNIACEAE Nakai 1949 (Paulownia Family)**

\* *Paulownia tomentosa* (Thunberg) Siebold & Zuccarini ex Steudel, Princess tree, Empress tree, paulownia

**PHRYMACEAE Schauer 1847 (Lopseed Family)**

*Lindernia monticola* Muhlenberg ex Nuttall, flatrock pimpernel, riverbank pimpernel

*Phryma leptostachya* Linnaeus var. *leptostachya*, American lopseed

**PHYLLANTHACEAE Martinov 1820 (Leaf-flower Family)**

*Phyllanthus caroliniensis* Walter ssp. *caroliniensis*, Carolina leaf-flower

**PHYTOLACCACEAE R. Brown 1818 (Pokeweed Family)**

*Phytolacca americana* Linnaeus, common pokeweed

**PLANTAGINACEAE A.L. de Jussieu 1789 (Plantain Family)**

*Amphianthus pusillus* Torrey, pool-sprite, snorkelwort

*Nuttallanthus canadensis* (Linnaeus) D.A. Sutton, common toadflax

*Penstemon australis* Small, southern beardtongue, sandhill beardtongue

\* *Plantago major* Linnaeus, common plantain, whiteman's-foot

*Plantago rugelii* Decaisne, American plantain, broad-leaved plantain

*Plantago virginica* Linnaeus, Virginia plantain

\* *Veronica arvensis* Linnaeus, corn speedwell, wall speedwell

**PLATANACEAE Dumortier 1829 (Plane-tree Family)**

*Platanus occidentalis* Linnaeus var. *occidentalis*, sycamore, plane-tree

**POLEMONIACEAE A.L. de Jussieu 1789 (Jacob's-ladder Family)**

*Ipomopsis rubra* (Linnaeus) Wherry, standing-cypress

*Phlox carolina* Linnaeus ssp. *carolina*, thick-leaf phlox

*Phlox nivalis* Loddiges ex Sweet var. *hantzii* (Nuttall) Wherry, trailing phlox

*Phlox pilosa* Linnaeus ssp. *pilosa*, downy phlox

**POLYGONACEAE A.L. de Jussieu 1789 (Smartweed Family)**

*Fallopia scandens* (Linnaeus) Holub var. *scandens*, common climbing buckwheat

*Persicaria lapathifolia* (Linnaeus) S.F. Gray, willow-weed, dockleaf smartweed, pale smartweed

\* *Persicaria longiseta* (de Bruijn) Kitagawa, longbristle smartweed

*Persicaria virginiana* (Linnaeus) Gaertner, jumpseed

\* *Rumex crispus* Linnaeus ssp. *crispus*, curly dock

*Rumex hastatulus* Baldwin, wild dock

**PORTULACACEAE A.L. de Jussieu 1789 (Purslane Family)**

<sup>M</sup> *Phemeranthus teretifolius* (Pursh) Rafinesque, Appalachian rock-pink, fame flower

**RANUNCULACEAE A.L. de Jussieu 1789 (Buttercup Family)**

<sup>C</sup> *Anemone acutiloba* (Augustin de Candolle) G. Lawson, sharp-lobed hepatica, sharp-lobed liverleaf

<sup>±</sup> *Anemone virginiana* Linnaeus var. *virginiana*, tall anemone, rhimbleweed

*Anemonella thalictroides* (Linnaeus) Spach, rue-anemone, windflower

<sup>M</sup> *Aquilegia canadensis* Linnaeus, Canada columbine, eastern columbine

*Clematis virginiana* Linnaeus, virgin's-bower

*Ranunculus abortivus* Linnaeus, kidneyleaf buttercup  
*Thalictrum clavatum* Augustin de Candolle, lady-rue, mountain meadowrue  
*Thalictrum dioicum* Linnaeus, early meadowrue  
*Xanthorhiza simplicissima* Marshall, yellowroot, brook-feather

### RHAMNACEAE A.L. de Jussieu 1789 (Buckthorn Family)

<sup>c</sup> *Berchemia scandens* (Hill) K. Koch, supplejack, American rattan  
*Ceanothus americanus* Linnaeus var. *americanus*, common New Jersey fea

### ROSACEAE A.L. de Jussieu 1789 (Rose Family)

*Agrimonia pubescens* Wallroth, downy agrimony  
*Amelanchier arborea* (Michaux f.) Fernald  
*Amelanchier canadensis* (Linnaeus) Medikus, eastern serviceberry  
*Crataegus flava* Aiton, yellow hawthorn  
*Crataegus uniflora* Muenchhausen, oneflower hawthorn  
*Fragaria virginiana* P. Miller, wild strawberry  
*Malus angustifolia* (Aiton) Michaux, wild crab apple  
\* *Potentilla indica* (Andrews) T. Wolf, Indian strawberry  
*Potentilla simplex* Michaux, old-field five-fingers  
*Prunus alabamensis* C. Mohr, Alabama black cherry  
*Prunus angustifolia* Marshall var. *angustifolia*, chickasaw plum  
<sup>p</sup> *Prunus persica* (Linnaeus) Batsch, peach  
*Prunus serotina* Ehrhart var. *serotina*, black cherry  
*Rosa carolina* Linnaeus, Carolina rose  
\* *Rosa multiflora* Thunberg ex Murray, multiflora rose  
*Rubus argutus* Link, southern blackberry  
\* *Rubus bifrons* Vest ex Trattinick  
*Rubus flagellaris* Willdenow, northerndewberry

### RUBIACEAE A.L. de Jussieu 1789 (Madder Family)

*Diodia teres* Walter, poorjoe  
*Diodia virginiana* Linnaeus  
*Galium aparine* Linnaeus, cleavers  
*Galium circaezans* Michaux var. *circaezans*, southern rorest bedstraw  
*Galium lanceolatum* Torrey, wild-licorice  
*Galium pilosum* Aiton var. *pilosum*  
*Houstonia caerulea* Linnaeus, Quaker ladies, innocence, common bluet  
*Houstonia purpurea* Linnaeus var. *purpurea*, summer bluet  
*Houstonia pusilla* Schoepf, tiny bluet  
<sup>M</sup> *Houstonia tenuifolia* Nuttall, diffuse-branched bluet

### RUTACEAE A.L. de Jussieu 1789 (Citrus Family)

<sup>M</sup> *Ptelea trifoliata* Linnaeus var. *trifoliata*, smooth hop-tree  
<sup>M</sup> *Zanthoxylum americanum* P. Miller, prickly-ash, toothache tree, northern prickly-ash

### SALICACEAE de Mirbel 1815 (Willow Family)

*Salix nigra* Marshall, black willow

### SAPINDACEAE A.L. de Jussieu 1789 (Soapberry Family)

<sup>M</sup> *Acer floridanum* (Chapman) Pax, southern sugar maple, Florida maple  
*Acer rubrum* Linnaeus var. *rubrum*, eastern red maple  
*Aesculus pavia* Linnaeus var. *pavia*, red buckeye (all the plants on Little Kennesaw Mountain have scarlet flowers)

**SAXIFRAGACEAE A.L. de Jussieu 1789 (Saxifrage Family)**

± *Heuchera americana* Linnaeus, American alumroot  
*Micranthes virginiensis* (Michaux) Small, early saxifrage

**SCROPHULARIACEAE A.L. de Jussieu 1789 (Snapdragon Family)**

\* *Verbascum thapsus* Linnaeus, woolly mullein, common mullein, flannel-plant, velvet-plant

**SIMAROUBACEAE DC. 1811 (Quassia Family)**

\* *Ailanthus altissima* (P. Miller) Swingle, tree-of-Heaven, copal tree, stink-tree

**SOLANACEAE A.L. Jussieu 1789 (Nightshade Family)**

*Physalis heterophylla* Nees, clammy ground-cherry  
*Solanum americanum* P. Miller  
*Solanum carolinense* Linnaeus var. *carolinense*, horse-nettle, sall-nettle

**SYMPLOCACEAE Desfontaines 1820 (Sweetleaf Family)**

*Symplocos tinctoria* (Linnaeus) L'Heritier de Brutelle, sweetleaf, horsesugar

**ULMACEAE de Mirbel 1815 (Elm Family)**

*Ulmus alata* Michaux, winged elm  
*Ulmus americana* Linnaeus var. *americana*, American elm  
*Ulmus rubra* Muhlenberg, slippery elm, red elm

**URTICACEAE A.L. de Jussieu 1789 (Nettle Family)**

*Boehmeria cylindrica* (Linnaeus) Swartz, false-nettle

**VALERIANACEAE Batsch 1802 (Valerian Family)**

*Valerianella radiata* (Linnaeus) Dufresne, corn salad

**VIOLACEAE Batsch 1802 (Violet Family)**

*Viola bicolor* Pursh, wild pansy  
*Viola hastata* Michaux, spearleaf violet, silverleaf violet, halberd-leaf violet  
*Viola palmata* Linnaeus var. *palmata*, wood violet  
*Viola pedata* Linnaeus, bird's-foot violet  
*Viola pubescens* Aiton var. *pubescens*, hairy yellow forest violet  
*Viola sororia* Willdenow, dooryard violet, confederate violet, common blue violet

**VISCACEAE Batsch 1802 (Mistletoe Family)**

*Phoradendron serotinum* (Rafinesque) M.C. Johnston ssp. *serotinum*, American mistletoe, Christmas mistletoe

**VITACEAE A.L. de Jussieu 1789 (Grape Family)**

*Ampelopsis arborea* (Linnaeus) Koehne, peppervine  
*Parthenocissus quinquefolia* (Linnaeus) Planchon, Virginia-creeper  
*Vitis aestivalis* Michaux var. *aestivalis*, summer grape  
*Vitis rotundifolia* Michaux var. *rotundifolia*, muscadine, scuppernong

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**Monocots****AGAVACEAE Endlicher 1841 (Agave Family)**

<sup>M</sup> *Manfreda virginica* (Linnaeus) Salisbury ex Rose, rattlesnake-master, eastern false-aloë  
*Schoenolirion croceum* (Michaux) Wood, yellow sunnysbell, sunnysbells  
*Yucca filamentosa* Linnaeus, curlyleaf yucca, spoonleaf yucca

**ALLIACEAE J. Agardh 1858 (Onion Family)**

*Allium canadense* Linnaeus var. *canadense*, wild onion  
 \* *Allium vineale* Linnaeus, field garlic, onion grass

**ARACEAE A.L. de Jussieu 1789 (Arum Family)**

*Arisaema triphyllum* (Linnaeus) Schott ssp. *triphyllum*, common Jack-in-the-pulpit

**COLCHICACEAE Augustin de Candolle 1805 (Meadow Saffron Family)**

*Uvularia perfoliata* Linnaeus, perfoliate bellwort  
*Uvularia sessilifolia* Linnaeus, straw-lily, wild-oats

**COMMELINACEAE R. Brown 1810 (Spiderwort Family)**

\* *Commelina communis* Linnaeus var. *communis*, common dayflower  
*Commelina erecta* Linnaeus var. *erecta*, erect dayflower  
*Commelina virginica* Linnaeus, Virginia dayflower  
*Tradescantia ohiensis* Rafinesque, smooth spiderwort

**DIOSCOREACEAE R. Brown 1810 (Yam Family)**

*Dioscorea villosa* Linnaeus, common wild yam

**HEMEROCALLIDACEAE R. Brown 1810 (Day-lily Family)**

\* *Hemerocallis fulva* (Linnaeus) Linnaeus, orange day-lily, tawny day-lily

**HYPOXIDACEAE R. Brown 1814 (Stargrass Family)**

*Hypoxis hirsuta* (Linnaeus) Coville, common stargrass

**IRIDACEAE A.L. de Jussieu 1789 (Iris Family)**

\* *Iris domestica* (Linnaeus) Goldblatt & Mabberley, blackberry-lily  
*Sisyrinchium albidum* Rafinesque, blue-eyed grass, irisette  
*Sisyrinchium angustifolium* P. Miller, blue-eyed grass, irisette

**JUNCACEAE A.L. de Jussieu 1789 (Rush Family)**

*Juncus georgianus* Coville, Georgia rush  
*Luzula acuminata* Rafinesque var. *carolinae* (S. Watson) Fernald, wood rush

**LILIACEAE A.L. de Jussieu 1789 (Lily Family)**

*Medeola virginiana* Linnaeus, Indian cucumber-root

**MELANTHIACEAE Batsch 1802 (Bunchflower Family)**

*Chamaelirium luteum* (Linnaeus) A. Gray, Devil's-bit

**ORCHIDACEAE A.L. de Jussieu 1789 (Orchid Family)**

*Cypripedium acaule* Aiton, pink lady's-slipper, moccasin-flower  
*Goodyera pubescens* (Willdenow) R. Brown, downy rattlesnake-orchid

<sup>M</sup> *Hexaletris spicata* (Walter) Barnhart var. *spicata*, crested coralroot, brunetta  
*Platanthera clavellata* (Michaux) Luer, small green wood orchid  
*Spiranthes tuberosa* Rafinesque, little ladies'-tresses, little pearl-twist  
*Tipularia discolor* (Pursh) Nuttall, crane-fly orchid

### **POACEAE (R. Brown) Barnhart 1895 or GRAMINEAE A.L. de Jussieu 1789 (Grass Family)**

*Arundinaria tecta* Walter, switch cane, small cane  
<sup>\*</sup> *Cynodon dactylon* (Linnaeus) Persoon var. *dactylon*, Bermuda grass, scutch grass  
<sup>\*</sup> *Microstegium vimineum* (Trinius) A. Camus, slexible sasa-grass, Japanese-grass  
<sup>\*</sup> *Poa annua* Linnaeus, Speargrass, six-weeks grass, annual bluegrass  
*Saccharum giganteum* (Walter) Persoon, sugarcane plume grass, giant plume grass

### **RUSCACEAE M. Roemer 1840 (Ruscus Family)**

*Maianthemum racemosum* (Linnaeus) Link ssp. *racemosum*, eastern Solomon's-plume, false Solomon's-seal  
*Polygonatum biflorum* (Walter) Elliott var. *biflorum*, small Solomon's-seal

### **SMILACACEAE Ventenat 1799 (Greenbrier Family)**

*Smilax bona-nox* Linnaeus, Catbrier, tramp's-trouble  
*Smilax glauca* Walter, whiteleaf greenbrier, wild sarsaparilla  
*Smilax herbacea* Linnaeus, common carrionflower  
*Smilax hispida* Rafinesque, bristly greenbrier, hellfetter  
*Smilax laurifolia* Linnaeus, blaspheme-vine, bamboo-vine  
*Smilax rotundifolia* Linnaeus, common freenbrier, bullbrier, horsebrier

### **TRILLIACEAE Lindley 1846 (Trillium Family)**

<sup>M</sup> *Trillium catesbaei* Elliott, Catesby's trillium, bashful trillium, rosy wake-robin  
*Trillium cuneatum* Rafinesque, sweet Betsy, purple toadshade, large toadshade, wedge-petal trillium, bloody butcher

### **XYRIDACEAE C. Agardh 1823 (Yellow-eyed Grass Family)**

*Xyris jupicai* L.C. Richard, yellow-eyed grass