

Common Name	Scientific Name	Plant Code	On Campus	Campus Location
balsam fir	<i>Abies balsamea</i>	BF	Yes	See Campus Map
boxelder	<i>Acer negundo</i>	BE	Yes	See Campus Map
red maple	<i>Acer rubrum</i>	RM	Yes	See Campus Map
silver maple	<i>Acer saccharinum</i>	SIM	Yes	See Campus Map
sugar maple	<i>Acer saccharum</i>	SUM	Yes	See Campus Map
Tag (speckled) alder	<i>Alnus incana</i>	TAG	Yes	Schmeeckle
serviceberry (shadbush, juneberry)	<i>Amelanchier sp.</i>	SB	Yes	See Campus Map
yellow birch	<i>Betula alleghaniensis</i>	YB	Yes	See Campus Map
river birch	<i>Betula nigra</i>	RB	Yes	See Campus Map
paper birch	<i>Betula papyrifera</i>	PB	Yes	NE Corner of Science Building
American hornbeam, blue-beech	<i>Carpinus caroliniana</i>	AHB	Yes	NW Corner of LRC
bitternut hickory	<i>Carya cordiformis</i>	BH	No	
shagbark hickory	<i>Carya ovata</i>	SH	Yes	See Campus Map
catalpa	<i>Catalpa speciosa</i>	CT	Yes	NE Corner of Science Building
Hackberry	<i>Celtis occidentalis</i>	HB	Yes	See Campus Map
redstemmed dogwood	<i>Cornus sericea</i>	RD	Yes	See Campus Map
alternate-leaf (pagoda) dogwood	<i>Cornus alternifolia</i>	PD	Yes	See Campus Map
American hazelnut	<i>Corylus americana</i>	AHN	No	
hawthorn	<i>Crataegus spp.</i>	HT	Yes	Schmeeckle
white ash	<i>Fraxinus americana</i>	WA	Yes	Schmeeckle
black ash	<i>Fraxinus nigra</i>	BA	Yes	Schmeeckle
green ash	<i>Fraxinus pennsylvanica</i>	GA	Yes	See Campus Map
ginkgo; maidenhair tree	<i>Ginkgo biloba</i>	GK	Yes	See Campus Map
honey locust	<i>Gleditsia triacanthos</i>	HL	Yes	See Campus Map
Kentucky coffeetree	<i>Gymnocladus dioicus</i>	KC	Yes	See Campus Map
witch-hazel	<i>Hamamelis virginiana</i>	WH	Yes	See Campus Map
butternut	<i>Juglans cinerea</i>	BN	Yes	See Campus Map
black walnut	<i>Juglans nigra</i>	BW	Yes	See Campus Map
eastern redcedar	<i>Juniperus virginiana</i>	ER	Yes	Southeast of LRC Across Street (in hedge row)
tamarack	<i>Larix laricina</i>	TAM	Yes	Along Michigan Ave Northeast End of Campus
hophornbeam	<i>Ostrya virginiana</i>	HHB	Yes	West End of CNR
Norway spruce	<i>Picea abies</i>	NS	Yes	See Campus Map
white spruce	<i>Picea glauca</i>	WS	Yes	See Campus Map
black spruce	<i>Picea mariana</i>	BS	No	
blue spruce; Colorado blue spruce	<i>Picea pungens</i>	CS	Yes	See Campus Map
jack pine	<i>Pinus banksiana</i>	JP	Yes	Schmeeckle
red pine	<i>Pinus resinosa</i>	RP	Yes	See Campus Map
eastern white pine	<i>Pinus strobus</i>	EW	Yes	See Campus Map
eastern cottonwood	<i>Populus deltoides</i>	EC	Yes	Schmeeckle
bigtooth aspen	<i>Populus grandidentata</i>	BTA	Yes	Schmeeckle
quaking (trembling) aspen	<i>Populus tremuloides</i>	QA	Yes	Schmeeckle
pin (fire, bird) cherry	<i>Prunus pensylvanica</i>	PC	Yes	See Campus Map
black cherry	<i>Prunus serotina</i>	BC	Yes	Schmeeckle
choke cherry	<i>Prunus virginiana</i>	CC	Yes	See Campus Map
Douglas-fir	<i>Pseudotsuga menziesii</i>	DF	Yes	See Campus Map
white oak	<i>Quercus alba</i>	WO	Yes	See Campus Map
swamp white oak	<i>Quercus bicolor</i>	SWO	Yes	See Campus Map
northern pin oak	<i>Quercus ellipsoidalis</i>	NPO	Yes	See Campus Map
bur oak	<i>Quercus macrocarpa</i>	BO	Yes	See Campus Map
northern red oak	<i>Quercus rubra</i>	NRO	Yes	See Campus Map
glossy buckthorn	<i>Rhamnus frangula</i>	GB	Yes	Schmeeckle
Common buckthorn	<i>Rhamnus cathartica</i>	CB	Yes	Schmeeckle
staghorn sumac	<i>Rhus typhina</i>	SS	Yes	Southeast of Roach Hall
black (yellow) locust	<i>Robinia pseudoacacia</i>	BL	Yes	See Campus Map
willow	<i>Salix sp.</i>	WL	Yes	Schmeeckle
yew	<i>Taxus sp.</i>	YE	Yes	See Campus Map
northern white-cedar; arborvitae	<i>Thuja occidentalis</i>	NW	Yes	See Campus Map
American basswood	<i>Tilia americana</i>	AB	Yes	See Campus Map
eastern hemlock	<i>Tsuga canadensis</i>	EH	Yes	North End of CNR
American elm	<i>Ulmus americana</i>	AE	Yes	See Campus Map
nannyberry	<i>Viburnum lentago</i>	NB	No	
other		O		

University Center



Gymnosperms

***Abies balsamea* – balsam fir** – Needles: Linear, two-ranked, ½-1” long, slight notch at apex, stomatal bands below, persistent; Cones: Erect, 1½-3¼” long, oblong-cylindrical; bark resin blisters

***Ginkgo biloba* – ginkgo or maidenhair tree (98)** Foliage: Deciduous, alternate, clusters of 3-5 on spur shoots, single on long shoots, 2-3” wide by 2-3” long, 1½”-3½” long petiole, fan shaped, dichotomously veined; Fruit: Dioecious, fleshy covering of seed, foul odor

***Juniperus virginiana* eastern redcedar** – Needles: 1/16” long, opposite pairs, awl-shaped juvenile spiny-pointed, scale-like adult with pointed apex, dark bluish-green becoming yellowish-brown winter; Fruit: Berry-like, ¼” long, pale green turning blue, glaucous

***Larix laricina* – Tamarack or Eastern Larch:** Needles – deciduous, 12 to 30 / bundle, ½” to 1” long; Twig – Thin, glabrous becoming bloomy or reddish brown; Cone – ½ to 1” long, egg-shaped

***Picea abies* – Norway spruce** – Needles: 4-sided, ½-1” long, tip blunt, on sterigmata, Cones: Pendent, 4-7” long, cylindrical; Pendulous branches

***Picea glauca* – white spruce** – Needles: 4-sided, ½-¾” long, tip acute not sharp, on sterigmata, pungent odor to crushed foliage; Cones: Pendent, 1¼-2 ½” long, narrowly oblong, truncate to slightly rounded

***Picea pungens* – blue spruce or Colorado Blue Spruce** – Needles: 4-sided, ¾-1¼” long, sharp-pointed, stiff, on sterigmata; Cones: Pendent, 2½-4” long, cylindrical, sessile or short-stalked, apex toothed

***Pinus banksiana* – jack pine:** Leaves – 2 needles per fascicle, small needles 0.75 – 2”, divergent; Cones – serotinous, mostly unarmed; Intolerant species

***Pinus resinosa* – red pine** – Needles: acicular, 2 per fascicle, 4-6¼” long, brittle break clean, persist 4-5 years; Cones: Sub-sessile, 1½-2 3/8” long, pendent, ovoid-conic, umbo dorsal unarmed

***Pinus strobus* – eastern white pine** – Needles: acicular, 5 per fascicle, 2½-5 ” long, slender and flexible, persist 2-3 years; Cones: Long-staked, 3-8” long, pendent, narrowly oblong-conic, umbo terminal unarmed

***Pseudotsuga menziesii* – Douglas-Fir** – Needles: Linear, 5/8-1¼” long, somewhat 2-ranked, rounded apex, stomatiferous below, persistent; Cones: Pendent, 1 5/8-4” long, ovoid-cylindric, 3-lobed bracts; Pointed bud

***Taxus spp.* – yew** – Foliage: Linear, ½-1” long, persistent; Fruit: Ovoid, surrounded by aril, ¼” long; (*Taxus canadensis* Canadian yew is a shrub 3-6’ tall)

***Thuja occidentalis* northern white-cedar; Arborvitae** – Foliage: Yellow-green, fan like 1/16-1/8” long, scale-like and flattened; Cones: Erect, ½” long, oblong

***Tsuga canadensis* eastern hemlock** – Needles: Linear, 3/8-5/8” long, tapered base to apex, 2 prominent rows stomata, persist 3 years; Cones: Short-staked, 5/8-3/4” long, pendent, oblong-ovoid,

Angiosperms

***Acer negundo* – boxelder:** Leaves – Pinnately compound, 3 to 7 leaflets, variable shape, lobed leaflets, acuminate, opposite branched; Twig – Newest growth with glaucous bloom, turning purplish to green; Fruit – V-shaped samara; Size – 30 to 50' (up to 70')

***Acer rubrum* – red maple:** Leaves – Opposite, simple, palmately 3 or 5-lobed (usually 3), acute sinuses, serrate leaf margins; Buds – Vegetative buds obtuse, red, 2 to 4 pairs visible scales; Stem – Similar to silver maple except mostly odorless when crushed, dark red, lustrous; Fruit – Vernal (spring), double samara, slightly divergent; Size – 40 to 70'

***Acer saccharinum* – silver maple:** Leaves – Opposite, simple, usually palmately 5-lobed, deep sinuses, silvery underneath, serrate leaf margins; Buds – Vegetative buds pointed, red, 2 outer scales form “V” shaped notch; Stem – Similar to red maple except rank odor when crushed, lustrous red to brown; Fruit – Vernal (spring), double samara, ~90°; Size – 60 to 80'

***Acer saccharum* – sugar maple:** Leaves – Opposite, Simple, usually palmately 5-lobed, lacks milky sap; Buds – Pointed, 4 to 8 pairs of visible scales; Stem – Slender, shiny, and brownish ; Fruit – Autumnal, double samara, nearly parallel to slightly divergent horseshoe-shaped; Size – 60 to 80'

***Alnus incana* – tag alder (not in text):** Leaves doubly serrated, alternate branched, triangular pith, stalked buds, twigs reddish brown, coarse shrub typically found near water

***Amelanchier* spp. – serviceberry:** Finely serrated leaf margin, shrubs and trees, trails on bark, great fruit, white flowers

***Betula alleghaniensis* – yellow birch:** Leaves – Alternate, simple, ovate to oblong-ovate, pointed at apex, base rounded or heart shaped; Buds – Ovate, acute, imbricate; Stem – Slender, aromatic with slight order and taste of wintergreen; Fruit – Catkin; Size – 60 to 70'; Yellowish-golden bark, peeling in thin curly strips

***Betula nigra* – River Birch:** Leaves – Alternate, simple, rhombic-ovate, base wedge-shaped, sharp pointed, doubly serrated, glaucous beneath, at apex; Buds – Imbricate, small; Stem – Warty excursions; Bark: – Light reddish-brown to cinnamon-brown, peeling freely, with age becomes irregular plate-like sca

***Betula papyrifera* – paper birch:** Leaves – Simple, alternate branched, doubly serrated, base rounded to obtuse lacking serration; Bark – Spur shoots, reddish to orange-brown turning white and separating into sheets with age, horizontal lenticels

***Carpinus caroliniana* – hornbeam, musclewood, bluebeech:** Leaves – Alternate, simple, doubly serrated; finely branched twig texture; Bark – Fluted appearance; extremely hard wood, understory species

***Carya cordiformis* – Bitternut bark** Leaf – Alternate, pinnately compound, 7 to 11 leaflets, lanceolate and serrate leaflets, slender and pubescent rachis; Twig – Moderately stout, most slender of hickories, 3-lobed leaf scar, terminal bud is sulfur-yellow, valvate, 4-angled; Bark – Smooth when young, developing shallow furrows and interlacing ridges, bark feels hard, appears thin and tight; Fruit – Nearly globose but slightly flattened, 1 inch long, partially dehiscent at the middle to the sharp-pointed tip, The husk is thin and 4-winged above the middle, often dusty yellow looking, maturing in September to October; Form: Medium-sized tree with an open, rounded top, coarse appearance

***Carya ovata* – Shagbark Hickory:** Leaves – Alternate, pinnately compound, 5 leaflets (rarely 7); Bud – Imbricate with 2 to 4 imbricate scales, terminal broadly ovate, blunt pointed, brown; Stem – Stout, grey; Bark – Broke into shaggy strips at ends, ashy-gray; Fruit – Nearly round 1 to 2 ½” in diameter, 4 ribbed, thick husk (1/4”), dehiscent along 4 sutures

***Catalpa speciosa* – Northern Catalpa:** Leaves – Whorled, opposite, simple, 6 to 12” long, truncate to cordate leaf base, entire, densely pubescent beneath; Buds – Terminal absent, small 1/12” high, hemispherical; Stem – Stout, lenticels large; Fruit – Long 8 to 20”, capsule with numerous winged fruits; Habit – Narrow, irregular, oval crown, 40 to 60’ tall

***Celtis occidentalis* – hackberry:** Leaves – Alternate, simple, ovate to oblong-ovate, acuminate tip, serrate except at base, rough to glabrous upper surface, oblique and rounded or broad-cuneate (wedge-shaped); Buds – Small (1/4” or less) and imbricate; Stem – Slender, somewhat zig-zag, bark with corky projections (suggested as warty?); Fruit – Fleshy drupe, orange-red to dark purple; Habit – Weakly pyramidal becoming broad topped with ascending branches

***Cornus alternifolia* – alternate-leaf (pagoda) dogwood (not in text):** Arcuately veined leaves, alternate branched, bark distinct, layered (=pagoda) branching, bluish-black fruit on red pedicels

***Cornus sericea* – Redosier Dogwood (formally as *C. stolonifera*):** Leaves – Opposite, simple, ovate to oblong-lanceolate, acuminate, rounded at base, entire; Stem – bright red (yellow twig cultivar); Fruit – White; Habit – loose broad spreading, multi-stemmed, 7 to 9’ tall by 10’ wide, suckering

***Corylus americana* – American hazelnut:** Long stalked glandular hairs on twigs, doubly serrated leaves, forms thickets, tolerates dry sites, excellent wildlife species, separated from beaked hazel (*C. cornuta*) which lacks glandular hairs

***Crataegus* spp. – hawthorn:** Thorns (modified branches), prominent double serrated leaf, many species/hybrids

***Fraxinus americana* – white ash:** Leaves – Opposite, pinnately compound, 5 to 9 leaf; Buds – Rusty to dark brown to almost black, inset in leaf scar; Stem – Smiling leaf scar; Bark – Becoming diamond shaped with age; Fruit – Samara, looks like canoe paddle, wing ends at seed; Habit – 50 to 80’ tall, weakly pyramidal to upright oval becoming open and rather round topped tree, tends to be cleaner (less twiggy than green ash), upland

***Fraxinus nigra* – Black Ash:** Leaves – Opposite, pinnately compound, 7 to 11 sessile, serrated leaflets, oblong or oblong-lance shaped, 3 to 5” long, dark green glabrous above, lighter and hairy at base and midrib below; Stem – Stout, round, smooth, light brown to gray, buds nearly dark brown to black, first lateral separate from terminal, nearly circular leaf scar, smooth becoming corky bark; Fruit – Perfect flowers, slightly notched tip, broad, wing extends to seed base, 1 to 1 ½ inch long; Habit – Small to medium sized tree, 40 to 50 feet tall, slender crown

***Fraxinus pennsylvanica* – Green Ash:** Leaves – Opposite, pinnately compound, 5 to 9 leaflets; Buds – Dark rusty brown, set above leaf scar; Stem – Flat-topped leaf scar; Bark: – Young shiny bark with lenticels, becoming irregular furrows; Fruit – Dioecious, quill-shaped, wing goes around seed; Habit – 50 to 60’ tall, softly pyramidal becoming upright spreading habit to irregular, becoming twiggy, bottomland

***Gleditsia triacanthos* – honeylocust:** Leaves – Alternate, pinnately or bi-pinnately compound, 6 to 8” long, rachis pubescent, petiole encases bud, ovate-lanceolate to elliptical, crenulate margin; Buds – Terminal absent, laterals small to absent; Stem – Shiny, smooth, zig-zag; Fruit – Reddish-brown legume, 7 to 8” long, irregularly twisted, seeds oval, dark-brown; Size – Variable 30 to 70’ tall and wide; Flowers – Greenish-yellow

***Gymnocladus dioica* – Kentucky coffeetree:** Leaves – Alternate, bipinnately compound, to 36” long by 24” wide; Buds – Large leaf scar, terminal absent, laterals small; Stem – Very stout, brown or slightly greenish, glabrous to slightly velvety; Fruit – Pod, reddish-brown, 5 to 10” long, 1 ½” to 2” wide, contains large blackish brown seeds; Size – 60 to 75’ by 40 to 50’ wide; Flowers – Greenish-white

***Hamamelis virginiana* – Common Witchhazel:** Leaves – Alternate, simple, coarsely crenate-dentate, basically wavy, oblique leaf base, pubescent under veins, obovate to elliptical; Buds – Naked, brownish, tomentose, flower buds 3 to 4 paired globose, stalked buds; Stem – Slender, older glabrous, younger brownish and pubescent; Flower – Open in fall, yellowish; Habit – Large shrub to tree to 20 to 30’ by 20 to 25’ spread, beautiful spreading form of irregular branching

***Juglans cinerea* – butternut:** Leaves – Alternate, pinnately compound leaf, 11 to 17 nearly sessile leaflets, pubescent rachis, terminal leaflet usually present, margin serrate; Buds – Pale silky-downy, elevated (obcordate) notched leaf scar, ½ to 1” terminal; Stem – Stout, greenish-gray to reddish-brown, chambered pith dark (chocolate-brown) colored; Bark – Shallow to moderately furrowed, form flat broad ridges, light gray; Fruit – Nut surrounded by greenish-bronze husk, oblong-ovoid; Size – 40 to 60’ tall, best growth on deep rich bottomlands, although also found on drier, rockier soils of limestone nature, globose to irregular form

***Juglans nigra* – black walnut:** Leaves – Alternate, pinnately compound leaf, 9 to 23 nearly sessile leaflets, drops leaflets of rachis, pubescent rachis, aromatic foliage, terminal leaflet often lacking, margin finely serrate; Buds – Pale silky-downy, notched leaf scar, 1/3” terminal; Stem – Stout, light brown to orange-brown, chambered pith light (buff) colored; Bark – Deeply furrowed, diamond shaped pattern, grayish-blackish; Fruit – Nut surrounded by green husk, globose or nearly so; Size – 50 to 75’ tall (record 130’ tall), best growth on deep rich moist soils, globose to irregular form

***Ostrya virginiana* – hophornbeam:** Leaves – Alternate, simple, ovate to ovate-oblong, doubly serrated, acuminate, rounded or heart-shaped at base; Buds – Imbricate, small, pointed; Stem – Slender, dark-reddish; Bark: – Grayish-brown, peeling into longitudinal strips; Fruit – Enclosed in bladder, reminiscent of hops; Habit – Small tree but can reach 40’ tall;

***Populus deltoides* – eastern cottonwood:** Flattened petiole, D-shaped leaf base, lustrous brown resinous (sticky) bud

***Populus grandidentata* – bigtooth aspen:** Flattened petiole, toothed leaf margin, dull bud

***Populus tremuloides* – quaking aspen:** Flattened petiole, finely crenate/serrate leaf margin, shiny bud slightly resinous

***Prunus pensylvanica* – pin cherry:** Lance shaped leaf, smallest fruit, disturbed sites, 3-4” dbh large tree, intolerant spp., reddish twigs, glands on petiole, horizontal lenticels

***Prunus serotina* – black cherry:** Leaf underside with orangish pubescence (sun leaves), oblong lanceolate, latest to flower of cherries, glands on petiole, finely toothed, horizontal lenticels, black knot, charcoal bark

***Prunus virginiana* – choke cherry:** Pendant fruits, roundish leaf, small tree, glands on petiole, horizontal lenticels, black knot, ornamental purple leaf selections

***Quercus alba* – white oak:** Leaves – Alternate, simple, round lobes, entire, deeply lobed with 5 to 9 pairs of oblong lobes; Bud – Imbricate, broadly ovate, reddish brown to brown, sometimes hairy at ends of bud scales; Stem – Stout, brown to purple, angled, sometimes with a waxy bloom; Bark – Becomes light ash brown, often broken into small and vertically arranged blocks, scaly on surface, becoming irregularly plated and deeply fissured; Fruit – Acorn, sessile or short stalked, single or paired, ¾ to 1” long, ovoid-oblong, cup with bumpy scales, covers ¼ to 1/3 of cap; Habit – Pyramidal when young becoming upright-rounded to broad rounded with wide spreading branches, 50 to 80’ tall

***Quercus bicolor* – swamp white oak:** Leaves – Alternate, simple, round lobes, 6 to 10 pairs of coarse teeth, sometimes lobed halfway to midrib, velvety beneath; Bud – Imbricate, broadly ovate, light chestnut brown, coated with pale down; Stem – Stout to slender, glabrous, yellowish brown to reddish brown; Bark – Flaky, grayish brown, divided into deep longitudinal fissures rather than long flat ridges; Fruit – Acorn, 1” long, usually paired, borne on 1 to 4” long peduncles, cup covers 1/3 of acorn; Habit – Forms a broad open round-topped crown, 50 to 60’ tall

***Quercus ellipsoidalis* – northern pin oak, Hills Oak:** Leaves – Alternate, simple, sharp pointed bristles at end of lobes, 5 to 7 lobed, deeply lobed; Bud – Imbricate, shiny reddish brown; Stem – Covered with hairs becoming smooth; Bark – Dark gray-brown with shallow fissures, producing thin plates, inner bark light yellow; Fruit – Acorn, Cup covers 1/3 to ½ of nut, nut brownish with striate lines, elliptical to ovoid; Habit – Often narrow crown, upper branches upright with pendulous lower branches

***Quercus macrocarpa* – bur oak:** Leaves – Alternate, simple, rounded lobes, 5 to 7 pairs ovate to obtuse lobes, often deeply lobed at middle of leaf, whitish tomentulose below; Bud – Imbricate, pubescence covers entire bud, often stipular structures arising from buds; Stem – Stout, yellowish brown, develops corky ridges on some trees on 1 year or older stems; Bark – Rough, developing deep-ridged-and-furrowed character, dark gray to gray-brown; Fruit – Acorn, Solitary, usually stalked, cup covers ½ or more and conspicuously fringed; Size – Weakly pyramidal to oval in youth, 70 to 80’ tall, becoming broad crown of stout branches

***Quercus rubra* – northern red oak:** Leaves – Alternate, simple, 7 to 11 lobes, pointed bristles at end of lobes; Bud – Imbricate, oval to ovate, grayish at tip becoming brown at base, sharp pointed, slight hairs; Stem – Stout, greenish to reddish-brown, glabrous; Bark – Flat ribbon like gray areas intermingled with ridges and furrows; Fruit – Acorn, Solitary or paired, variable in shape, often subglobose 2/4 to 1” long, enclosed by thick saucer like cap; Habit – Rounded in youth becoming round topped and symmetrical, 60 to 75’ tall

***Rhamnus frangula* – glossy buckthorn, alder buckthorn:** Leaves – Alternate, simple, entire, lustrous green above; Buds – Terminal naked, foliose (leaf-like); Stem – Slender, prominent gray rectangular vertical lenticels; Fruit – Berry-like drupe, turning red to purple to black when mature, continues from July through September; Habit – Upright, spreading, low branched tree with open upright and oval form (Highly Invasive)

***Rhamnus cathartica* – European buckthorn:** Exotic invasive plant, sub opposite branching, leaves serrate, orbicular, blackish fruits,

***Rhus typhina* – staghorn sumac:** Leaves – Alternate, pinnately compound, 11-31 leaflets, coarsely serrate on margins; Buds – Leaf scar not elevated, somewhat c- or u-shaped; Stem – Stout, velvety; Fruit – Crimson, dense pack of drupes

***Robinia pseudoacacia* – black locust:** Leaves – Alternate, pinnately compound, 6 to 14” long 7 to 19 leaflets; Buds – Terminal absent, laterals minute; Stem – Spiny with paired stipular thorns, zig-zag twig, moderately stout; Fruit – Pod, 2 to 4” long, smooth, 4 to 10 seeded; Size – 30 to 50’ by 20 to 25’ spread; Flowers – White, Extremely fragrant

***Salix nigra* – Black Willow:** Very lanceolate leaf, only native tree willow in area, always near water, falcate leaf (sickle shaped), limber branches

***Tilia americana* – basswood:** Winged bracted fruit, unequal leaf base, acuminate tip, serrate leaf, 2 bud scales, vigorous sprouter, decay susceptible, fast growth

***Ulmus americana* – American elm:** Sharply doubly serrated leaf, bark alternate layered (in color x-sec), unequal leaf base

***Viburnum lentago* – nannyberry (not in text):** Leaves – Opposite, simple, leaves leathery, ovate to oblong-ovate; Buds – naked, long, round, thin; Stem – young light gray, scruffy pubescent, older gray heavily lenticelled; Fruit – green to red to black; Size – 10 to 15’ by 10 to 15’ wide; Flowers – White

On line: The following links are useful on-line references for silvics and woody plant ID

Trees of Wisconsin: http://www.uwgb.edu/biodiversity/herbarium/trees/tree_list_by_common.htm

Dendrology at Virginia Tech: <http://www.fw.vt.edu/dendro/dendrology/main.htm>

Silvics of Forest Trees of the United States. Agriculture Handbook No. 654. Two volumes. U.S. Government Printing Office, Washington, D.C.: http://www.na.fs.fed.us/spfo/pubs/silvics_manual/table_of_contents.htm

Forest Landowner Guide to Internet Resources – Tree Identification and Species Information: <http://na.fs.fed.us/pubs/misc/flg/index.cfm?fuseaction=DisplayResourceByCategory&CategoryID=5>

Landscape Plants of the Midwest: <http://www.midwestlandscapeplants.org/>

Robert W. Freckmann Herbarium at UWSP: <http://wisplants.uwsp.edu/VascularPlants.html>