

Table 5.5. Native trees and shrubs for riparian areas

Plant Name	Region	Flood Tolerance	Height (feet)	Growth	Wildlife Value	Aesthetic Value	Notes
Deciduous Trees:							
American beech <i>Fagus grandifolia</i>	C P	L	>75	slow	high, food and nest cavities	smooth light gray bark	prefers shade; rich, well drained soils
American hornbeam <i>Carpinus caroliniana</i>	P M	L - M	30-40	slow	moderate		common in bottomlands of Piedmont and mountains
Atlantic white cedar <i>Chamaecyparis thyoides</i>	C	M - H	50-75	medium	low		sun - cannot compete with hardwoods
Baldcypress <i>Taxodium distichum</i>	C	H	>75	medium	little food value; perching site for waterfowl	stately form	full sun - tolerates drought; Coastal Plain species
Black cherry <i>Prunus serotina</i>	C P M	L	40-60	medium	high, fruit is eaten by many birds	red leaves	temporarily flooded forests; prone to black knot disease
Black walnut <i>Juglans nigra</i>	C P M	M	>75	slow	moderate, food		temporarily flooded floodplains; well drained, deep soils
Black willow <i>Salix nigra</i>	C P M	H	50-75	fast	moderate, food and nesting		rapid growth; stabilizes streambanks; full sun
Blackgum (Swamp tupelo) <i>Nyssa sylvatica</i>	C P M	M - H	<50	moderate	high, food for ducks, turkey, mammals	brilliant red fall color, blue fruit	difficult to transplant; does best in sun to partial shade
Box elder <i>Acer negundo</i>	P M	H	50-65	very fast	low; provides some seeds		fast growth
Bitternut hickory <i>Carya cordiformis</i>	C P M	M	>75	medium-slow	moderate, food	yellow fall color	moist soils and wet bottomlands
Common chokecherry <i>Prunus virginiana</i>	M	L	30	fast	high, food		sun, dry sites

Downy Serviceberry (Shadblow) <i>Amelanchier arborea</i>	C P M	H	30-40	slow	high - food, nest, cover	early spring flower	understory tree
Eastern cottonwood <i>Populus deltoides</i>	C	H	>75	fast	moderate	yellow fall color	sun, rapid growth; shallow, invasive roots; prone to windthrow
Eastern hophornbeam <i>Ostrya virginiana</i>	C P M	L	40	medium	low-moderate	horticultural uses	understory, tolerates all light conditions
Flowering dogwood <i>Cornus florida</i>	C P M	L	30-40	fast	high	fall color, spring flowers, attractive red berries	prefers rich, moist soils; prone to anthracnose infection, shade tolerant
Green ash <i>Fraxinus pennsylvanica</i>	C P M	M - H	50-75	fast	low-moderate	yellow fall color	rapid growth; streambank stabilizer; good nutrient uptake; full sun to partial shade; good sawtimber tree
Hackberry <i>Celtis occidentalis</i>	M	L	>75	medium- fast	high; fruits and twigs, cover		full sun to partial shade; adaptable to a wide range of conditions
Hazel alder <i>Alnus serrulata</i>	C P M	H	30	fast	moderate		rapid growth; stabilizes streambank; full sun
Persimmon <i>Diospyros virginiana</i>	C P M	M	<50	slow	high	Red fall color	edible fruit; not shade tolerant
Pin oak <i>Quercus palustris</i>	C P M	H	50-75	fast	high	bronze or red fall foliage	tolerates acid soils; prefers sun to partial shade; gypsy moth target
Red maple <i>Acer rubrum</i>	C P M	H	50-75	fast	high; seeds	red fall color and spring bloom	tolerates acidic soils; rapid growth
Red mulberry <i>Morus rubra</i>	C P M	M	50-75	fast	high	Yellow fall color	
River birch <i>Betula nigra</i>	C P M	H	50	slow- medium	low-medium; provides cavities and some food	unique peeling reddish bark	bank erosion control; full sun

Silver maple <i>Acer saccharinum</i>	P M	H	>75	fast	low-med; nesting		good source of woody debris
Southern red oak <i>Quercus falcata</i>	C P	M	75-100	medium-fast	med-high	red fall color	prefers well-drained, sandy soil; gypsy moth target
Swamp chestnut oak <i>Quercus michauxii</i>	C P	H	>75	medium	high		full sun to partial shade; grows well in bottomlands; good sawtimber species
Sweetbay <i>Magnolia virginiana</i>	C	H	50	slow	low	horticultural uses	part shade
Sweetgum <i>Liquidambar styraciflua</i>	C P M	L M	50-75	medium-fast	low	excellent fall color; interesting seed pod	sun to partial shade; tolerates acidic, clayey soils
Sycamore <i>Platanus occidentalis</i>	C P M	M	>75	fast	low; provides cavities	unique white peeling bark, interesting seed pod	rapid growth; common on floodplains
White ash <i>Fraxinus americana</i>	C P M	M	>75	medium	med-high		well drained soils; all light conditions
White oak <i>Quercus alba</i>	C P M	L-M	>75	slow-medium	high	stately tree	prefers well drained soils; gypsy moth target
Willow oak <i>Quercus phellos</i>	C P	M-H	>75	fast	high	ornamental	full sun to partial shade; common in forested wetlands
Yellow (tulip) poplar <i>Liriodendron tulipifera</i>	C P M	L	>75	fast	moderate - low. Nest sites	yellow fall color, attractive flower	full sun to partial shade; well drained soils; rapid growth; high nutrient uptake
Evergreen trees and shrubs:							
American holly <i>Ilex opaca</i>	C P M	M-L	30-40	slow	high; food, cover, nesting	attractive winter foliage and berries	prefers shade and rich soils
Eastern redcedar <i>Juniperus virginiana</i>	C P M	L	<50	slow	moderate; food, cover		full sun to partial shade

Eastern hemlock <i>Tsuga canadensis</i>	M	M-H	>60	slow-med	moderate; good cover, winter food	attractive form	tolerates acidic soil; all light conditions
Loblolly pine <i>Pinus taeda</i>	C P	L	>75	fast	moderate		tolerant of extreme soil conditions; Coastal Plain species; fast growth
Mountain laurel <i>Kalmia latifolia</i>	P M	L	<30		low; nesting, escape cover	spring blooms, winter foliage	acidic soils; partial shade
Shrubs:							
Arrowwood viburnum <i>Viburnum dentatum</i>	C P M	M	10	medium	moderate-high		sun to partial shade; suckers freely
Bayberry (Wax myrtle) <i>Myrica cerifera</i>	C	H	40	medium	high; cover, nesting, persistent berries		tolerates slightly acidic soil; roots fix N; sun
Buttonbush <i>Cephalanthus occidentalis</i>	C P M	H	10	fast	moderate; ducks, nectar for hummingbirds	unusual round white flowers	full to partial shade; will grow in dry areas
Common (smooth) alder <i>Alnus serrulata</i>	C P M	H	25	medium-fast	low-moderate		stabilizes streambanks, fixes N; full sun
Fringetree <i>Chionanthus virginicus</i>	C P	L	30	fast	moderate	ornamental - profuse fragrant flowers, dark fruit	tolerates acidic soils; full sun to partial shade; free of insect and disease pests
Gray Dogwood <i>Cornus racemosa</i>	P M	L	10	medium	high	white flowers; white berries	
Highbush blueberry <i>Vaccinium corymbosum</i>	C P M	H	12	slow	high		sun to partial shade
Nannyberry <i>Viburnum lentago</i>	M	L	20		medium		often suckers
Ninebark <i>Physocarpus opulifolius</i>	C P	H	9	fast	low-med	peeling bark hidden by dense foliage	sun

Pawpaw <i>Asimina triloba</i>	C P M	M	30-40	medium-fast	high; food for turkey and mammals	attractive flower	suckers and forms colonies; shade
Pussywillow <i>Salix discolor</i>	P M	M		fast	moderate	often used in floral arrangements	
Pinxter azalea <i>Rhododendron nudiflorum</i>	C P	H	5	slow	low	showy clusters of pink flowers	
Red chokeberry <i>Aronia arbutifolia</i>	C P M	M	20		moderate; food and cover		bank stabilizer; partial sun
Silky (swamp) dogwood <i>Cornus amomum</i>	C P M	M	10	fast	high; berries and twigs	white flower, blue berry	bank stabilizer; shade and drought tolerant
Spicebush <i>Lindera benzoin</i>	C P M	M	9	fast	high - rabbit, possum, birds	fragrant leaves and twigs, yellow fall color	understory; tolerates acidic soils; shade and rich soils;
Swamp azalea <i>Rhododendron viscosum</i>	C P	H	17	medium	low	glossy leaves, white-pink flower	shade
Sweet Pepperbush <i>Clethra alnifolia</i>	C	H	15	medium	high	sweetly scented flower	sun to partial shade
Virginia willow (Sweetspire) <i>Itea virginica</i>	C	H	10	medium-slow	low	attractive flower spears	sun to partial shade
Winterberry <i>Ilex verticillata</i>	C P M	M-H	25	slow	high; cover and food, holds berries in winter	attractive berries held through winter, sometimes gathered for Xmas	full sun to partial shade; seasonally flooded areas; need male and female plants for fruit production
Witch hazel <i>Hamamelis virginiana</i>	P M	L	25	slow	low, food for squirrel, ruffed grouse	unusual fall flower and fruit	prefers shade

C = Coastal Plain; P = Piedmont; M = Mountains; H = High; M = Moderate; L = Low

From: 1) Tjaden, R.L. and G.M Weber. 1997. Trees for riparian forest buffers. Maryland Coop. Extension Service Fact Sheet 726. College Park, MD.

2) USDA Natural Resources Conservation Service 1996. Maryland NRCS Riparian Forest Buffer Standard. USDA-NRCS Annapolis, MD.

3) Palone, R.S. and A.H. Todd (eds.).1997.Chesapeake Bay riparian handbook: A guide for establishing and maintaining riparian forest buffers. USDA Forest Service NA-TP-02-97.

4) Elias, T.S. 1980. The complete trees of North America. Outdoor Life/Nature Books. Van Nostrand Reinhold Co. NY.

Table 5.6. Native warm-season grasses for riparian buffers

Grass	Suggested varieties	Height (feet)	Where found	Soil preference	Flood tolerance	Drought tolerance	Wildlife value	Comments
Switchgrass <i>Panicum virgatum</i>	Alamo Kanlow Cave-in-Rock	3' - 8', roots to 12'	Sandy shores, alluvium, banks	Loam to sand, well adapted to a variety of soil types.	Good	Good	Food for rabbit, muskrat, deer, wild turkey, ducks, geese. Excellent spring nesting habitat.	Long-lived. Useful as forage and wind barrier. Under study for use as energy biomass.
Big Bluestem <i>Andropogon gerardi</i>	Niagara	6' - 8', roots to 8'	Moist meadows, river banks	Loamy soils, moderate drainage or better. Grows well on acid, droughty, low fertility sites.	Fair	Good	Good	Valuable forage as pasture and hay. Valuable in ornamental plantings and xeriscapes.
Little Bluestem <i>Schizachyrium scoparium</i>	Aldous Camper Blaze	1.5' - 3', roots to 7'	Roadsides, open woods	Sand to loam. Does well on droughty sites.	Poor	Good	Good	Occurs throughout Virginia. Low maintenance cover highly recommended for droughty sites.
Indiangrass <i>Sorghastrum nutans</i>	Rumsey	3' - 8'	Moist or dry fields, roadsides	Wide range of soil types. Prefers deep well drained floodplain soils.	Poor	Good	Food and cover.	Ornamental value. Good for erosion control on droughty sites.
Coastal Panicgrass <i>Panicum amarulum</i>	Atlantic	3' - 6', roots 6'+	Sandy shores, alluvium, banks	Sand to loam	Good	Good	Food for rabbit, muskrat, deer, wild turkey, ducks, geese	Good for sand dune stabilization, reclaimed minelands and for wind barriers.
Eastern gamagrass <i>Tripsacum dactyloides</i>	Pete	8'	Open fields, swamps, wet shores	Moderately well drained to poorly drained soils.	Very good.			Most productive, nutritious warm season grass for producing livestock forage.
<p>From: USDA Natural Resources Conservation Service. Grasses that can be used for planting in riparian forest buffers and herbaceous buffers. USDA-NRCS Conservation Plant Sheets for the Northeast. USDA-NRCS Annapolis, MD.</p> <p>USDA Natural Resources Conservation Service. 1996. Natl. Engineering Hdbk., Pt. 650 - Engineering Field Hdbk. Ch. 16 - Streamline & Shoreline Protection. USDA NRCS Washington, DC.</p>								