



NATIVE TREES for Riparian Buffers in the Upper Connecticut River Valley of New Hampshire and Vermont

NAME	DECID/ EVERGR	MATURE HEIGHT	GROWTH RATE	ROOTING	LIGHT PREFERENCE		SOIL PREFERENCE			WILDLIFE HABITAT & FOOD VALUE	ORNAMENTAL VALUE	BANK STABILIZING VALUE	HARDINESS ZONE
					full/ part shade	full sun	dry	moist	flood tolerant				
Silver maple <i>Acer saccharinum</i>	d	60'	moderate	shallow	x	x		x	x	low – moderate; provides cover	silvery foliage	very good, esp. for flood chute	4
Box elder <i>Acer negundo</i>	d	40-70'	very fast	deep lateral		x	x	x	x	low - seeds eaten; provides cover		very good, esp. for flood chute	3
Pagoda dogwood <i>Cornus alternifolia</i>	d	15'	fast	shallow	x	x		x		high – fruits eaten by many birds inc. bluebirds, turkey, grouse	elegant branching habit; white flowers	very good	3
Black willow <i>Salix nigra</i>	d	50'	very fast	very shallow		x		x	x	high – cover for nesting	new foliage is attractively colored	excellent, esp. for flood chute	3
Red maple <i>Acer rubrum</i>	d	40–75'	moderate to fast	very shallow		x	x	x	x	high – seeds, buds eaten by birds & mammals	early red flowers, bright fall color	very good	3
Striped maple <i>Acer pensylvanicum</i>	d	20–35'	moderate	shallow	x			x		low – moderate	white striped bark attractive all seasons		3
Sugar maple <i>Acer saccharum</i>	d	60–100'	slow	shallow	x	x		x		moderate – seeds and buds eaten by large & small mammals, seeds eaten by grosbeaks & finches	excellent fall color, attractive shape		3
American beech <i>Fagus grandifolius</i>	d	70–90'	slow	shallow	x	x	x	x		high – nuts valued by large and small mammals, turkey; favorite tree for black bears	smooth gray bark in winter, copper fall color		3
Black cherry <i>Prunus serotina</i>	d	40–60'	moderate	deep taproot	x		x			high – berries eaten by many songbirds, mammals, inc. thrushes, foxes, bears, raccoons; avoid planting near areas used by livestock	flowers, attractive reddish brown bark; <i>however</i> , prone to tent caterpillar		3
Wild plum <i>Prunus nigra</i>	d	25'	moderate	shallow	x	x	x	x		moderate	early white flowers, attractive black bark; handsome fall foliage		3
American mountain ash <i>Sorbus americana</i>	d	25'	fast	shallow	x	x	x	x		high – early fruit eaten by grosbeaks, bluebirds	attractive shape, good for small lawns; brilliant orange red fall foliage, showy white flowers, clusters of bright red or orange berries		3
Shadbush, serviceberry <i>Amelanchier laevis</i>	d	15–25'	slow	shallow	x	x	x	x	x	high – berries eaten by many songbirds; bluebirds, cardinals, orioles, thrushes	masses of early white flowers, berries, bright fall color; effective screening		4
Black walnut <i>Juglans nigra</i>	d	50–75'	moderate	very deep	x			x		high – nuts eaten by mammals; plant away from edge of water and from gardens: a chemical in the roots and husks of nuts affects fish and many garden plants	edible nuts, attractive shape		4
Northern red oak <i>Quercus rubra</i>	d	60–80'	moderate	deep lateral	x	x	x	x		high – acorns for bear, raccoon, turkey, grouse; favored by hawks for nesting	attractive shape, fine fall color		3
Yellow birch <i>Betula allegheniensis</i>	d	60–90'	slow	shallow/ moderate	x		x	x		high – seeds favorite winter food of pine siskins and redpolls; also snowshoe hare; used by hawks for nesting	shining golden bark		3

NAME	DECID/ EVERGR	MATURE HEIGHT	GROWTH RATE	ROOTING	LIGHT PREFERENCE		SOIL PREFERENCE			WILDLIFE HABITAT & FOOD VALUE	ORNAMENTAL VALUE	BANK STABILIZING VALUE	HARDINESS ZONE
					full/ part shade	full sun	dry	moist	flood tolerant				
Paper birch <i>Betula papyrifera</i>	d	50–75'	fast	shallow		x	x	x		moderate – seeds eaten by grouse, siskins; buds by small mammals	attractive white bark (avoid planting in public areas to avoid problem of bark stripping)		3
Grey birch <i>Betula populifolia</i>	d	20–35'	fast	shallow			x	x		moderate – seeds, buds	gray bark		3
Black birch <i>Betula lenta</i>	d	50–75'	moderate	shallow	x			x		moderate – catkins, seeds	reddish brown bark		4
Hophornbeam <i>Ostrya virginiana</i>	d	25–50'	slow	shallow	x	x	x	x		moderate – seeds	yellow fall color; red bark		4
American hornbeam <i>Carpinus caroliniana</i>	d	20–30'	slow	moderate	x	x	x	x	x	moderate – seeds eaten by birds, squirrels	gray bark, fall color		3
White ash <i>Fraxinus americana</i>	d	70–100'	moderate	shallow	x	x		x	x	moderate	purple fall color		3
Green ash <i>Fraxinus pennsylvanica</i>	d	60–80'	fast	shallow	x	x		x	x	low	purple fall color	very good	3
Black ash <i>Fraxinus nigra</i>	d	60–80'	moderate	shallow	x			x	x	moderate	wood used for splint baskets	excellent	3
Basswood <i>Tilia americana</i>	d	70–80'	moderate	deep	x	x		x		moderate	attractive foliage and shape		3
Balsam poplar <i>Populus balsamea</i>	d	60–80'	fast	shallow		x	x	x		low	can be brittle and drop branches	very good	3
Eastern cottonwood <i>Populus deltoides</i>	d	80–100'	fast	shallow		x	x	x	x	low – grouse browse catkins	can be brittle and drop branches		3
Quaking aspen <i>Populus tremuloides</i>	d	40–60'	fast	shallow		x	x	x		moderate – beaver, porcupine, deer; favorite food of beaver and snowshoe hare; buds important to grouse	can be brittle and drop branches; fluttering gray–green leaves		3
White pine <i>Pinus strobus</i>	e	70–100'	moderate	shallow		x	x	x		high – food & cover for birds & mammals, inc. crossbills and cardinals	feathery foliage; good year–round screen		3
Red pine <i>Pinus resinosa</i>	e	50–80'	moderate	shallow		x	x	x		moderate	orange–red bark; good year–round screen		4
White spruce <i>Picea glauca</i>	e	40–70'	moderate	shallow	x	x	x	x		moderate – seeds	foliage; windbreak, screen		3
Balsam fir <i>Abies balsamea</i>	e	50–75'	fast	shallow		x		x	x	high – seeds; bird roosting, nesting	fragrant, glossy foliage, attractive habit, Xmas trees		3
Hemlock <i>Tsuga canadensis</i>	e	40–70'	moderate	shallow lateral	x		x	x		moderate – winter deer cover, seeds eaten by small mammals, chickadees, siskins, crossbills, grouse; nesting cover for warblers	attractive foliage, habit; screen		3
Northern white cedar <i>Thuja occidentalis</i>	e	25–50'	slow/mod	shallow		x		x	x	moderate – winter cover	attractive foliage; screen		3
Tamarack <i>Larix laricina</i>	d	40–80'	variable	moderate		x		x	x	high	pale new foliage; yellow fall color		3



NATIVE SHRUBS for Riparian Buffers in the Upper Connecticut River Valley of New Hampshire and Vermont

NAME	DECID/ EVERGR	MATURE HEIGHT	GROWTH RATE	LIGHT PREFERENCE		SOIL PREFERENCE			WILDLIFE HABITAT & FOOD VALUE	ORNAMENTAL VALUE	BANK STABILIZING VALUE	HARDINESS ZONE
				full/ part shade	full sun	dry	moist	flood tolerant				
Silky dogwood <i>Cornus amomum</i>	d	6-10'	fast	x	x	x	x	x	high – fruits eaten by birds & mammals; cover	purple twigs	excellent	4
Grey dogwood <i>Cornus racemosa</i>	d	10'	moderate	x	x	x	x		very high – fruit eaten by grouse and pheasant	small whitish flower cluster, white fruits	very good	4
Red osier dogwood <i>Cornus sericea, ssp. stolonifera</i>	d	4-8'	fast	x	x		x	x	high – whitish fruit eaten by birds	bright red stems attractive in winter; white flowers	very good	3
Willows <i>Salix spp.</i>	d	4-10'	fast		x		x	x	high – provides good cover	foliage	excellent	3
Pussy willow <i>Salix discolor</i>	d	20'	fast		x		x	x	moderate – nesting; buds eaten; male flowers attract butterflies	early buds are used in horticultural arrangements	excellent	3
Buttonbush <i>Cephalanthus occidentalis</i>	d	6-12'	moderate	x	x		x	x	moderate – high; nectar used by hummingbirds; waterfowl eat seed	white pom-pom like flower clusters; glossy foliage	excellent	4
Highbush blueberry <i>Vaccinium corymbosum</i>	d	6-12'	slow	x	x	x	x	x	high – fruits eaten by birds & mammals; favorite of scarlet tanagers, bluebirds, grouse	flowers, fruits, bright fall color, attractive habit		3
Lowbush blueberry <i>Vaccinium angustifolium</i>	d	1-2'	slow	x	x	x	x		high – fruits eaten by birds and mammals	flowers, fruits, scarlet fall color, good ground cover		3
Black chokeberry <i>Aronia melanocarpa</i>	d	10'	moderate	x	x	x	x	x	very high – fruits	purple fruits, purple fall color		4
Pin cherry, bird cherry <i>Prunus pennsylvanica</i>	d	30'	fast		x	x			high – fruits used by birds	shining dark red bark, white flower clusters, red fruits		3
Chokecherry <i>Prunus virginiana</i>	d	15-25'	moderate	x	x	x	x		moderate – fruits, cover	flowers, fruits, good fall color		3
American cranberry bush <i>Viburnum trilobum</i>	d	10'	slow to moderate	x	x	x	x	x	high – fruits persist into winter	white flower clusters, scarlet fruits, good fall color		3
Wild raisin, witherod <i>Viburnum cassinoides</i>	d	6-10'	moderate	x			x	x	high – fruit eaten by grouse, songbirds; rabbits & deer browse twigs	white flowers, edible blue-black fruits, good fall color		4
Nannyberry <i>Viburnum lentago</i>	d	10-20'	moderate	x	x	x	x		high – fruits remain into winter	fruits, good fall color		3
Northern arrowwood <i>Viburnum recognitum</i>	d	10-15'	moderate	x	x		x	x	moderate – fruits eaten by birds; nesting	flowers, blue fruits, good fall color		3
Maple-leaf viburnum <i>Viburnum acerifolium</i>	d	3-6'	moderate	x	x		x		moderate – fruits eaten by birds	fruits, attractive foliage, good fall color		3
Hobblebush <i>Viburnum alnifolium</i>	d	10'	moderate	x			x	x	moderate – fruits eaten by birds	very showy white flower clusters in halo arrangement; purple fall color; open habit		4
Winterberry holly <i>Ilex verticillata</i>	d	6-10'	slow	x	x		x	x	high – fruits eaten by flickers, thrushes, cedar waxwings, also birds in winter	attractive bright red berries persist into winter, make excellent Xmas decorations		3
Inkberry holly <i>Ilex glabra</i>	e	6-8'	slow	x	x		x	x	high – fruits eaten by songbirds, turkey, grouse	leathery evergreen foliage; black fruits		4

NAME	DECID/ EVERGR	MATURE HEIGHT	GROWTH RATE	LIGHT PREFERENCE		SOIL PREFERENCE			WILDLIFE HABITAT & FOOD VALUE	ORNAMENTAL VALUE	BANK STABILIZING VALUE	HARDINESS ZONE
				full/ part shade	full sun	dry	moist	flood tolerant				
Sheep laurel <i>Kalmia angustifolia</i>	semi-e	4'	slow	x	x	x	x	x	(poisonous to livestock)	very showy pink-red flowers		3
Elderberry <i>Sambucus canadensis</i>	d	12'	moderate	x	x		x	x	very high – berries an important summer food for songbirds inc. bluebirds, rose-breasted grosbeaks, pileated woodpeckers, thrushes	showy white flower clusters; blue berries; jelly and wine can be made from berries	very good	3
Sweet pepperbush <i>Clethra alnifolia</i>	d	8'	moderate	x	x		x	x	high – fruits	white flowers		4
Hazelnut <i>Corylus americana</i>	d	10'	moderate	x	x		x		high – nuts eaten by mammals, grouse, pheasant	edible nuts		3
Beaked hazelnut <i>Corylus cornuta</i>	d	6-10'	moderate	x	x		x		high – beaked nuts used by both mammals & birds	good for hedges; edible nuts		5
Speckled alder <i>Alnus rugosa</i>	d	15-25'	fast		x		x	x	moderate – buds & twigs browsed by muskrat, rabbits, moose, deer, beaver, grouse	tiny cones make Xmas decorations	very good	3
Spicebush <i>Lindera benzoin</i>	d	12'	moderate		x		x	x	high – many mammals and birds eat fruits, buds, & twigs; attracts swallowtail butterflies	spicy scented flowers and leaves; shiny red fruits		5
Witch hazel <i>Hamamelis virginiana</i>	d	20-30'	slow	x	x		x		moderate	yellow flowers in autumn after leaves fall		4
Rhodora azalea <i>Rhododendron canadense</i>	d	3-4'	slow		x		x	x	low	very showy rose purple flowers before leaves		3
Swamp azalea <i>Rhododendron viscosum</i>	d	5'	moderate	x	x		x	x	low	glossy leaves, very showy white - pink flowers		5
Early azalea <i>Rhododendron roseum</i>	d	10'	slow	x		x	x		low	very showy white or pink flowers		4
Blackberry <i>Rubus allegheniensis</i>	d	6'	fast		x	x	x	x	very high – fruits eaten by over 40 species of birds inc. woodcock, turkey, grouse; also by many mammals	makes good barrier		3
Raspberry <i>Rubus idaeus</i>	d	6'	fast	x	x	x	x		same as above – fruits eaten by many mammals & birds	makes good barrier		3
Meadowsweet <i>Spiraea latifolia</i>	d	5'	moderate		x		x		low	white or pale pink flowers	very good	2
Steeplebush <i>Spiraea tomentosa</i>	d	4'	moderate	x	x		x	x	low	spires of pink flowers		3
Staghorn sumac <i>Rhus typhina</i>	d	20'	fast	x	x	x			very high – fruits late winter survival food for mammals and migrating songbirds; twigs eaten by moose, deer, N E cottontail rabbit	colorful fruit clusters, brilliant fall color; velvet covered branches	good	3
Smooth sumac <i>Rhus glabra</i>	d	9-15'	fast		x	x			high – fruits	red fruit clusters, orange-red fall color		3
Sweet gale <i>Myrica gale</i>	d	2-4'	slow		x		x	x	moderate – grouse eat buds and leaves; deer browse	aromatic foliage		3
Sweetfern <i>Comptonia peregrina</i>	d	2-4'	slow- moderate	x	x	x			moderate – grouse, deer feed on foliage	gray green aromatic fern-like leaves		3
Pasture juniper <i>Juniperus communis</i>	e	1-4'	slow		x	x			moderate – food for grouse, pheasant, deer, moose, small mammals, & birds	foliage; good ground cover		3



NATIVE GROUND COVERS, Vines, and Herbaceous Perennials for Riparian Buffers in the Upper Connecticut River Valley of New Hampshire and Vermont

NAME	DECID/ EVERGR	HT	LIGHT PREFERENCE		SOIL PREFERENCE			WILDLIFE HABITAT & FOOD VALUE	ORNAMENTAL VALUE
			full/part shade	full sun	dry	moist	flood tolerant		
Riverbank grape <i>Vitis riparia</i>	d	25'	x	x		x	x	very high – fruits a favorite of turkeys, grouse, wood duck, pileated woodpeckers, & mammals inc. bear	vines useful for making wreaths
Virginia creeper, woodbine <i>Parthenocissus quinquefolia</i>	d	25'	x	x	x	x		moderate – provides cover; pileated woodpecker, crested flycatcher, vireo	foliage – good cover for walls and rockpiles when leafed out
Partridge berry <i>Mitchella repens</i>	e	2'	x		x	x		high – berries eaten by grouse & mammals	dark green, glossy foliage; paired white flowers in June; bright red berries in late summer, fall
Bearberry <i>Arctostaphylos uva-ursi</i>	e	1'		x	x			high – fruits	handsome foliage; good ground cover
Wintergreen <i>Gaultheria procumbens</i>	e	4"	x			x		high – fruits	flowers, fruits, glossy aromatic foliage
Blue flag iris <i>Iris versicolor</i>	d	1-3'		x		x	x	low	showy purple-blue flowers in late spring
Milkweed <i>Asclepias tuberosa</i>	d	2		x		x		very high – one of most important butterfly plants; monarchs rely exclusively on it; hummingbirds & many other insects use flower nectar	fragrant pink-purple flowers; distinctive seed pods useful for decorations
Blue-eyed grasses <i>Sisyrinchium spp.</i>	d	1'		x	x	x		low	stiff, grass-like plants with blue-violet flowers
Ginseng <i>Panax quinquefolius</i>	d	8-16"	x			x		low	woodland wildflower of pharmaceutical interest. Wild populations are suffering from over-collecting, but cultivated plants could be harvested from a forested riparian buffer.
Bunchberry <i>Cornus canadensis</i>	e	6"	x			x		high – fruits eaten by birds and mammals	showy white spring flowers and red summer berries, purplish fall color; excellent ground cover
Foamflower <i>Tiarella cordifolia</i>	d	1'	x			x		low	small star-like flowers in a loose spike
Twinflower <i>Linnaea borealis</i>	e	6"	x			x		low	trailing plant; white and pink paired flowers
Marsh marigold <i>Caltha palustris</i>	d	1-2'		x		x	x	low	early yellow flowers
Whorled loosestrife <i>Lysimachia quadrifolia</i>	d	4'	x	x	x	x		low	yellow flowers with red markings; attractive foliage; not related to invasive purple loosestrife
Cardinal flower <i>Lobelia cardinalis</i>	d	2-4'		x		x	x	moderate – hummingbirds attracted to flowers	brilliant red flowers
Blue false indigo <i>Baptisia australis</i>	d	3-4'	x	x	x	x		low	large dark blue or violet flowers
Joe pye weed <i>Eupatorium purpureum</i>	d	5-6'		x		x	x	high – butterflies are attracted to flowers	large flat-topped cluster of fuzzy purple flowers
Boneset <i>Eupatorium perfoliatum</i>	d	4-6'		x	x	x		high – attracts butterflies & other insects	white flowers

NAME	DECID/ EVERGR	HT	LIGHT PREFERENCE		SOIL PREFERENCE			WILDLIFE HABITAT & FOOD VALUE	ORNAMENTAL VALUE
			full/part shade	full sun	dry	moist	flood tolerant		
Wild lupine <i>Lupinus perennis</i>	d	1-3'		x	x	x		low	purple-blue flower spires in June; attractive foliage
Harebell <i>Campanula rotundifolia</i>	d	1'	x		x			low	delicate wildflower with blue-lavender bell shaped flowers
Jewelweed <i>Impatiens capensis</i>	d	1-3'	x	x		x	x	high – favored by hummingbirds, butterflies	orange flowers in summer; seed capsules burst when touched; juice of plant said to help defend against exposure to poison ivy
Daisy <i>Chrysanthemum leucanthemum</i>	d	1-4'		x	x	x		moderate – seeds favored by finches; common nectar source for butterflies	familiar white ray flower with yellow center
Goldenrod <i>Solidago</i> spp.	d	1-5'		x	x	x		moderate – seeds eaten by finches; nectar by butterflies	many species of wildflowers in midsummer to early fall; all except silverrod are yellow
New England aster <i>Aster novae-angliae</i>	d	5'		x	x	x		high – seeds used by songbirds; attracts butterflies	late summer/fall purple flowers with yellow centers
Christmas fern <i>Polystichum acrostichoides</i>	e	1'	x			x		low	evergreen ground cover; glossy foliage
Hay-scented fern <i>Dennstaedtia punctilobula</i>	d	2'	x	x	x	x		low	fragrant light-green foliage; spreads well, forms pure stands; tolerates full sun
Bracken fern <i>Pteridium aquilinum</i>	d	2-3'	x	x	x			low	sturdy foliage; tolerates full sun
Cinnamon fern <i>Osmunda cinnamomea</i>	d	3-4'	x			x	x	low	vase-shaped clusters; handsome foliage; cinnamon colored fertile fronds
Royal fern <i>Osmunda regalis</i>	d	6'	x	x		x	x	low	handsome foliage; new crosiers edible as “fiddle heads”
Interrupted fern <i>Osmunda claytoniana</i>	d	3-4'	x			x		low	vase-shaped clusters
Sensitive fern <i>Onoclea sensibilis</i>	d	2'	x			x	x	low	fertile fronds used in dried arrangements
Cattail <i>Typha latifolia</i>	d	6'		x		x	x	high – seed heads valuable food for birds	strap shaped leaves; brown seed head is distinctive and often used in horticultural arrangements
Reed grass <i>Calamagrostis canadensis</i>	d	5'		x		x	x	moderate	attractive grass forms clumps, stabilizes soils well
Pennsylvania sedge <i>Carex pennsylvanica</i>	d	2'		x	x			low	forms low turf on sunny dry soils
Tussock sedge <i>Carex stricta</i>	d	4'		x		x	x	moderate – food for sparrows, grouse, snipe, others	forms clumps or tussocks
Rattlesnake manna grass <i>Glyceria canadensis</i>	d	3'		x		x		moderate	grass with delicate and distinctive inflorescence; plant in clusters where no competition by others is likely
Rice cutgrass <i>Leersia oryzoides</i>	d	5'		x		x	x	high – food for waterfowl; cover for fish, reptiles, amphibians	attractive seed head
Tufted hair grass <i>Deschampsia caespitosa</i>	d	4'				x		moderate	attractive seed head