

Bulletin #2500, Gardening to Conserve Maine's Native Landscape: Plants to Use and Plants to Avoid

Gardening to Conserve Maine's Native Landscape: Plants to Use and Plants to Avoid

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Maine's Native Landscape

Maine's landscape is famous for its variety. Within the state one can find ocean beaches, lakes, rivers, mountains, and forests. Maine is locally influenced by both coastal and inland weather patterns. This creates relatively mild areas, and areas that are almost arctic within the state's 300 mile length and 200 mile width. Maine rises from sea level to over 5,000 feet in elevation at the top of Mount Katahdin. This wide range of elevation results in a diversity of habitats including flat sandy plains, rolling hills, rounded summits and craggy mountains with sheer cliffs. Maine's forests vary from spruce and fir near the coast, to hardwoods in the western and northern hills. More than 100 types of habitats have been identified with about 1,500 native plant species spread across the state's varied landscape.

What Are Native Versus Non-native Plant Species, and Why Should I Care?

Native plants are those species that either arrived in Maine without human intervention, perhaps thousands of years ago, or originated here. Non-native species were brought intentionally for horticultural or other uses, or came accidentally in ships' ballasts, crop seed or in soil. Some non-native plants continue to escape from cultivation and become naturalized in wetlands, lakes, woods, fields or roadsides.

Natural predators and diseases are left behind when non-native plants are introduced here. Therefore, their spread is uncontrolled and such non-native species as purple loosestrife, Japanese barberry and Asian honeysuckle can become serious pests.

One long-term effect of invasive non-native species is to degrade habitat for native plants and animals. These plants choke out native vegetation, diminish the availability of food plants for wildlife, and alter the behavior of native animals such as pollinators, plant-eating insects and fruit-eating birds. Unchecked, invasion by non-natives could drive some species to extinction. This is why non-native plants are a major concern to people who want to protect native species and natural areas.

Plants to Avoid and Why

Most familiar nursery plants are not invasive and are appropriate for planting. However, a few popular species, including purple loosestrife and Japanese barberry, are highly invasive. A single purple loosestrife plant can produce three million seeds in a single season! Even the tiniest root fragments can grow into new plants. Japanese barberry is invading Maine's forests and wetlands because birds disperse its seeds over long distances. Both species are very difficult to eradicate once they become established.

Non-native Plants Considered Most Invasive in Maine Include:

- purple loosestrife (*Lythrum salicaria*)
- Japanese barberry (*Berberis thunbergii*)
- Oriental bittersweet (*Celastrus orbiculatus*)
- Japanese knotweed (*Fallopia japonica*)
- smooth and common buckthorn (*Frangula alnus* and *Rhamnus cathartica*)
- non-native honeysuckles (*Lonicera spp.*)
- garlic mustard (*Alliaria petiolata*)
- multiflora rose (*Rosa multiflora*)
- small-flowered tickle-grass (*Deschampsia cespitosa ssp. parviflora*)
- common reed (*Phragmites australis*)

What Can You Do to Help?

- You can promote native plants by refusing to purchase or transplant purple loosestrife and other invasive plants.
- Grow plants that do not “jump the fence” or escape from the garden.
- Try growing some native species as ornamentals and as food for birds and pollinators.
- Eliminate invasive non-natives from your yard and garden. Remove the plant, including roots, from the soil.
- Urge your garden center managers to expand their selection of propagated native plants.

Looking for Native Plants at Your Garden Center

Native plants are well adapted to Maine’s climate and are therefore hardy. Most plants in the Native Plant Recommendations are available at local garden centers, where the staff can usually help customers with plant selection. Ask if their native plants are nursery-propagated. Collecting plants, cuttings, seeds, or sods from the wild can devastate natural populations. If the nursery cannot guarantee that its native plants are nursery-propagated, purchase your plants elsewhere.

For more information about Maine native plants, see Bulletin #2502, “[Native Plants: A Maine Source List](#).”

The [Maine Invasive Plants](#) fact sheet series describes invasive exotic plants that present threats to native Maine terrestrial and aquatic habitats.

Key to Light and Moisture Abbreviations



Light:

F=full sunlight

P=partial shade

S=shade



Moisture:

H=hydric; wet, periodically or often inundated by water

M=mesic; moist, adequate soil moisture retention all year

S=sub-xeric; moist to dry, seasonally moist, periodically dry

X=xeric; dry and drought resistant, little moisture retention, excessively drained

Native Plant Recommendations

[Trees](#) | [Shrubs](#) | [Vines and Ground Covers](#) | [Perennials: Flowering Plants](#) | [Perennials: Ferns](#)

Trees					
NAME					
Common	Scientific	<input type="checkbox"/>	<input type="checkbox"/>	Height	Comments
Balsam fir	<i>Abies balsamea</i>	F,P	M	75'	Open growth in hot, dry locations; evergreen
Red maple, Swamp maple	<i>Acer rubrum</i>	F,P	M	60'	Excellent fall color; tolerates wet spring soils
Sugar maple, Rock maple	<i>Acer saccharum</i>	F,P	M	75'	Excellent orange-red fall color; beautiful large shade tree
Mountain maple	<i>Acer spicatum</i>	F,P	M	30'	Useful in naturalizing
Yellow birch	<i>Betula alleghaniensis</i>	F,P	M	100'	Does best in cool soils and cool summers; beautiful bark; long lived
Paper birch	<i>Betula papyrifera</i>	F	M	70'	Beautiful white bark year-round; tolerates poor, dry soils
Gray birch	<i>Betula populifolia</i>	F	M	40'	Does well in poor soils; good for naturalizing
American hornbeam, Blue-beech	<i>Carpinus caroliniana</i> spp. <i>virginiana</i>	F	M	30'	Good for naturalizing; tolerates periodic flooding
Pagoda dogwood	<i>Cornus alternifolia</i>	F,P	M	M 25'	Moist soil is important; white flowers in early June
Cockspur thorn	<i>Crataegus crus-galli</i>	F	M	30'	Glossy green leaves; 2" thorns; persistent dark red fruits
White ash	<i>Fraxinus americana</i>	F	M	80'	Handsome large tree; good fall leaf color; tolerates alkaline soil
Green ash	<i>Fraxinus pennsylvanica</i>	F,P	M	60'	Faster-growing than white ash; tolerates salty, dry and alkaline soil
Larch, Hackmatack, Tamarack	<i>Larix laricina</i>	F	H,M	80"	Good in well-drained and moist-to-wet naturalized sites

Black gum	<i>Nyssa sylvatica</i>	F,P	M	50'	Excellent yellow-orange fall leaf color
American hophornbeam	<i>Ostrya virginiana</i>	F,P	M,S	40'	Slow to establish after transplanting; good medium-sized tree
White spruce, Cat spruce	<i>Picea glauca</i>	F,P	M	60'	Good specimen or windbreak; evergreen
Black spruce	<i>Picea mariana</i>	F,P	M	40'	Tolerates wet sites; evergreen
Jack pine	<i>Pinus banksiana</i>	F	S,X	50'	Useful for windbreaks or mass plantings in sandy soil; evergreen
Red pine, Norway pine	<i>Pinus resinosa</i>	F	S,X	80'	Good windbreak; tolerates dry soils well; evergreen
White pine	<i>Pinus strobus</i>	F	M,S	80'	Handsome specimen; not tolerant of salt; evergreen
Bigtooth aspen	<i>Populus grandidentata</i>	F	M,S	70'	Fast growing, short lived; good yellow fall leaf color
Quaking aspen, Trembling aspen	<i>Populus tremuloides</i>	F	M	50'	Fast growing, short lived; good yellow fall leaf color
Pin cherry, fire cherry, bird cherry	<i>Prunus pensylvanica</i>	F	M	35'	Adaptable; fast growing; tolerates poor soil
Black cherry	<i>Prunus serotina</i>	F	M	60'	Interesting black bark; white flowers in spring; wildlife food source
White oak	<i>Quercus alba</i>	F	M	80'	Large tree; transplant when young
Northern red oak	<i>Quercus rubra</i>	F	M	75'	Transplants readily; good fall red leaf color
Black willow	<i>Salix nigra</i>	F	H,M	35'	Tolerates wet soils; twigs can cause lawn litter
American mountainash	<i>Sorbus americana</i>	F	M	30'	Fruits good in wildlife landscape
Northern white-cedar, Arborvitae	<i>Thuja occidentalis</i>	F,P	M	60'	Useful hedge or specimen plant; tolerates alkaline soil
Basswood, American linden	<i>Tilia americana</i>	F,P	M	80'	Large tree; tolerates alkaline soil; good for urban landscape
Eastern hemlock	<i>Tsuga canadensis</i>	F,P,S	M	70'	Graceful evergreen; does not tolerate drought or windy sites

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Shrubs

NAME					
Common	Scientific	<input type="checkbox"/>		Height	Comments
Downy serviceberry	<i>Amelanchier arborea</i>	F,P	M	25'	Useful in edible and wildlife landscapes; excellent orange fall color
Eastern serviceberry	<i>Amelanchier canadensis</i>	F,P	M	20'	Useful in edible and wildlife landscapes; yellow-gold fall color
Smooth serviceberry, Allegheny serviceberry	<i>Amelanchier laevis</i>	F,P	M	25'	Useful in edible and wildlife landscapes; spring leaves are bronze
Bog rosemary	<i>Andromeda polifolia var. glaucophylla</i>	F,P	H	1'	Leathery evergreen leaves; requires very moist acid soil
Buttonbush	<i>Cephalanthus occidentalis</i>	F	H	6'	Good for wetland plantings
Sweetfern	<i>Comptonia peregrina</i>	F,P	S,X	3'	Aromatic foliage; interesting texture; good in dry sandy soil
Gray dogwood	<i>Cornus racemosa</i>	F,P,S	M	15'	Suckering; white fall fruits eaten by many birds
Redosier dogwood	<i>Cornus sericea</i>	F	H,M	6'	Red stems attractive in winter; suckering; tolerates wet soil
American hazelnut	<i>Corylus americana</i>	F,P	M	15'	Good for naturalizing; fruit eaten by wildlife; tolerates alkaline soil
Bush-honeysuckle	<i>Diervilla lonicera</i>	S,P	M	5'	Suckering plant, very hardy, adaptable
Leatherwood	<i>Dirca palustris</i>	S	M	4'	Yellow fall color; thrives in moist, shady sites
Common witchhazel	<i>Hamamelis virginiana</i>	F,P	M	15'	Avoid droughty sites; yellow flowers in October; yellow fall leaf color
Winterberry, Black-alder	<i>Ilex verticillata</i>	F,P	H,M	10'	Bright red fruits persist into midwinter; excellent wetland plant
Common juniper	<i>Juniperus communis var. depressa</i>	F	M,S,X	3'	Tolerates drought, wind, sterile or alkaline soils; evergreen
Sheep, Laurel, Lambkill	<i>Kalmia angustifolia</i>	F,P	M,S	3'	Adaptable to many soils; best in very acid soil; good for naturalizing
Sweetgale	<i>Myrica gale</i>	F	S,X	4'	Bushy plant; dark green foliage; aromatic foliage

Northern bayberry	<i>Myrica pensylvanica</i>	F,P	S,X	6'	Good for massing; useful in poor soil sites; aromatic foliage
Bush cinquefoil	<i>Pentaphylloides floribunda</i> (<i>Potentilla fruticosa</i>)	F	M,S,X	4'	Good summer-flowering shrub; tolerates alkaline soil
Black chokeberry	<i>Photinia (Aronia) melanocarpa</i>	F,P	H,M,S	6'	Suckers; wine-red fall color; good wildlife plant in wet or dry soils
Beach plum	<i>Prunus maritima</i>	F	M,S	6'	Good for edible landscape; salt-tolerant
Chokecherry	<i>Prunus virginiana</i>	F	M	30'	Suckering shrub; white flowers in spring; wildlife food source
Rhodora	<i>Rhododendron canadense</i>	F,P	H,M	3'	Magenta flowers in spring; best in very acid soil
Labrador tea	<i>Rhododendron (Ledum) groenlandicum</i>	F,P	H,M	3'	Transplants well; good for moist-to-wet naturalized sites
Staghorn sumac	<i>Rhus hirta (R. typhina)</i>	P	M,S,X	25'	Spreads by suckers; good mass plant for dry slopes
Meadow rose	<i>Rosa blanda</i>	F	M	5'	Suckers; single light pink flowers; red hips in fall and winter
Pasture rose	<i>Rosa carolina</i>	F	M	5'	Pink single flowers in midsummer; small red hips persist into winter
Virginia rose	<i>Rosa virginiana</i>	F	M,S	5'	Suckers; good in dry and seaside sites; good barrier/hedge
Pussy willow	<i>Salix discolor</i>	S	H,M	15'	Fuzzy flowers in early spring; good for naturalizing
American elder	<i>Sambucus canadensis</i>	F	M	12'	Useful in edible landscape; tolerates alkaline soil
Scarlet elder	<i>Sambucus racemosa</i> spp. <i>pubens (S. pubens)</i>	F	M	20'	Flowers in mid to late July; handsome red fruit in midsummer
Canadian yew	<i>Taxus canadensis</i>	P,S	M	6'	Hardest yew; good for naturalized shady landscape; evergreen
Highbush blueberry	<i>Vaccinium corymbosum</i>	F	M	8'	Good for edible or wildlife landscapes; best in very acid soil
Mapleleaf viburnum	<i>Viburnum acerifolium</i>	P,S	M,S	6'	Suckering; good for mass plantings in shady sites

Hobblebush	<i>Viburnum lantanoides</i> (<i>V. alnifolium</i>)	P,S	M	8'	Open shrub; good for naturalized landscape
Arrowwood viburnum	<i>Viburnum dentatum</i> var. <i>lucidum</i>	F,P	M	15'	Durable; good for hedges; tolerates alkaline soil
Nannyberry	<i>Viburnum lentago</i>	F,P	M,S	15'	Good for wildlife and naturalized landscapes
Witherod, Wild-raisin	<i>Viburnum nudum</i> var. <i>cassinoides</i>	S,P	M	10'	Excellent fall foliage and fruit color
Highbush cranberry	<i>V. opulus</i> var. <i>americanum</i> (<i>V. o.</i> var. <i>trilobum</i>)	F,P	M	12'	Excellent for screening; good for wildlife landscapes

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Vines and Ground Covers

NAME					
Common	Scientific	<input type="checkbox"/>		Height	Comments
Running serviceberry	<i>Amelanchier stolonifera</i>	F,P	M	2'	Stoloniferous groundcover; forms thickets
Bearberry	<i>Arctostaphylos uva-ursi</i>	F,P	S,X	6"	Best in poor, sandy, very acid soils; salt-tolerant; groundcover
American bittersweet	<i>Celastrus scandens</i>	F,P	M,S	—	Climbing vine; separate male and female plants; tolerates alkaline soil
Virgin's bower	<i>Clematis virginiana</i>	F	M	—	Climbing vine; white flowers in late summer; best in alkaline soil
Bunchberry	<i>Cornus canadensis</i>	P,S	M	6"	Spreading groundcover; white flowers in spring; red fruit in fall
Checkerberry, Wintergreen	<i>Gaultheria procumbens</i>	P,S	M	6"	Evergreen groundcover; leaves fragrant when crushed; reddish in fall
Creeping juniper	<i>Juniperus horizontalis</i>	F	M,S,X	1'	Adaptable; tolerates hot, dry sites and alkaline soil; evergreen
Partridgeberry	<i>Mitchella repens</i>	S	M	2"	Delicate plant; red fruits persist into winter
Woodbine, Virginia creeper	<i>Parthenocissus quinquefolia</i>	F,P,S	M,S,X	—	Vigorous vine; tough; maroon fall color; tolerates alkaline soil

Lowbush blueberry	<i>Vaccinium angustifolium</i>	F	M	2'	Slow; good for edible or wildlife landscapes; requires acid soil
Cranberry	<i>Vaccinium macrocarpon</i>	F	H,M	6"	Slow; good for edible or wildlife landscapes; requires acid soil
Fox grape	<i>Vitis labrusca</i>	F	M	—	Handsome foliage; good vine for arbors and fences

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Perennials: Flowering Plants

NAME					
Common	Scientific	<input type="checkbox"/>		Height	Comments
White baneberry; Red baneberry	<i>Actaea pachypoda, A. rubra</i>	P,S	M	24"	Attractive, but poisonous fruits
Columbine	<i>Aquilegia canadensis</i>	F,P,S	M,S	12"	Early spring flowers
Spikenard	<i>Aralia racemosa</i>	P,S	M,S	36"	Good for back of border
Silverweed	<i>Argentina anserina</i>	F	S,X	6"	Yellow flowers, silvery leaves
Jack-in-the-pulpit	<i>Arisaema triphyllum</i>	P,S	H,M	12"	Flower green and brown; bright red fruits
Milkweed	<i>Asclepias syriaca</i>	F	S,X	36"	Attracts butterflies
Marsh marigold	<i>Caltha palustris</i>	F,P	H,M	12"	Showy yellow flowers in early spring
Harebell	<i>Campanula rotundifolia</i>	F,P	M,S,X	12"	Delicate blue-purple flowers
Blue cohosh	<i>Caulophyllum thalictroides</i>	P,S	M,S	36"	Blue fruits; back of border
White turtlehead	<i>Chelone glabra</i>	P,S	H,M	24"	Interesting white flowers in midsummer
Bluebead-lily	<i>Clintonia borealis</i>	P,S	M,S	12"	Pale yellow ball-shaped flowers; fruits poisonous
Trout-lily, Dog's-tooth-violet	<i>Erythronium americanum</i>	P,S	M	6"	Flowers early spring
Joe-pye weed	<i>Eupatorium maculatum</i>	F	H,M	48"	Purple flowers in fall; attracts butterflies; good for drying
Boneset	<i>Eupatorium perfoliatum</i>	F	H,M	24"	Green flowers; good for drying
Blue flag	<i>Iris versicolor</i>	F,P	H,M	24"	Elegant form; blue-purple flowers; easy to grow
Indian cucumber-root	<i>Medeola virginiana</i>	P,S	M	12"	Interesting magenta floral bracts

Obedient plant	<i>Physostegia virginiana</i>	F,P,S	M,S,X	24"	Flowers pink, leaves dark green; good cut flower
Solomon's seal	<i>Polygonatum pubescens</i>	P,S	M	18"	Arching stems; white flowers in early spring; tall groundcover for shade
Bloodroot	<i>Sanguinaria canadensis</i>	P,S	M	12"	Showy white flowers in early spring
New England aster	<i>Symphyotrichum (Aster) novae-angliae</i>	F,P	M,S,X	24"	Fall flowering; deep purple
New York aster	<i>Symphyotrichum (Aster) novi-belgii</i>	F,P	M,S,X	24"	Fall flowering; purple
Foam flower	<i>Tiarella cordifolia</i>	P	M	6"	Delicate white flowers in early spring
Wild-oats	<i>Uvularia sessilifolia</i>	P,S	M	6"	Creamy, bell-shaped flowers in early spring
Violet	<i>Viola species</i>	P	M	2-6"	Various species and colors; most self-sow to form groundcovers

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Perennials: Ferns

NAME					
Common	Scientific	<input type="checkbox"/>		Height	Comments
Maidenhair fern	<i>Adiantum pedatum</i>	P,S	M	18"	Graceful black stem; nearly circular fronds; tolerates alkaline soil
Lady fern	<i>Athyrium filix-femina var. angustum</i>	P,S	H,M	18"	Lacey fronds; reddish in spring
Hay-scented fern	<i>Dennstaedtia punctilobula</i>	F,P	S,X	12"	Fragrant lacey fronds; tolerates hot, dry sites; spreading
Spinulose wood fern	<i>Dryopteris carthusiana</i>	P,S	M,S	24"	Lacey fronds; reddish in spring
Marginal wood fern	<i>Dryopteris marginalis</i>	F,P	S,X	24"	Easy to grow; fronds blue-green; tolerates rocky sites
Ostrich fern	<i>Matteuccia struthiopteris var. pensylvanica</i>	P,S	M	36"	Edible fiddleheads; beautiful green fronds; plume-like fertile fronds

Sensitive fern	<i>Onoclea sensibilis</i>	F,P	H,M	12"	Easy to grow; spreads; persistent bead-like fertile fronds in winter
Cinnamon fern	<i>Osmunda cinnamomea</i>	P,S	H,M	36"	Easy to grow; attractive cinnamon-colored fertile frond in spring
Interrupted fern	<i>Osmunda claytoniana</i>	F,P,S	H,M,S,X	36"	Easy to grow; spreads well; luxuriant spring growth
Royal fern	<i>Osmunda regalis var. spectabilis</i>	F,P,S	H,M,S	36"	Vase-shaped; interesting fertile fronds; sterile fronds finely dissected
Long beech fern	<i>Phegopteris connectilis</i>	P,S	M	6"	Smaller size fern, low growing; spreads well
Christmas fern	<i>Polystichum acrostichoides</i>	P,S	M	12"	Leathery, evergreen fronds
The botanical names in this plant list are consistent with those found in: Haines, A. and T.F. Vining. 1998. <i>Flora of Maine: a Manual for Identification of Native and Naturalized Vascular Plants of Maine</i> . Bar Harbor, ME: V.F. Thomas Co.					

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