



















IDENTIFYING IMAGES	NAME (DISTRIBUTION)	COMMON IDENTIFICATION FACTS	EFFECTS ON NATIVE SPECIES	Treatment (Always re-treat as necessary and follow the pesticide label)
	<p>Asiatic Bittersweet</p>  <p><i>Celastrus orbiculata</i></p>	<p>The leaf shape and fruit color of Asiatic bittersweet have a very similar appearance to the native Vermont vine, American bittersweet. The best way to tell the difference is by the location of the flowers and fruits on the stem. On the invasive Asiatic bittersweet they are scattered along the entire stem, while on the native American bittersweet, they are found at the terminal end of each stem.</p> <p>Asiatic bittersweet has a high reproductive rate, long-range dispersal mechanisms, and the ability to root-sucker. The vines can strangle tree and shrub stems. All types of plants, even entire plant communities, can be overtopped and shaded out by the vine's rapid growth.</p>	<p>Asiatic bittersweet poses a serious threat to other species and to whole habitats due to its aggressive habit of twining around and growing over other vegetation.</p> <p>Nearly pure stands of this vine are sometimes found in affected areas. It inhabits roadsides, pasture edges, and woodlands throughout New England. It has been discovered colonizing sand dunes in Connecticut and Rhode Island.</p>	<ul style="list-style-type: none"> Small Infestations <ul style="list-style-type: none"> Dig with shovel: Remove the entire root system. L Shaped roots tend to break when hand pulled. Removal should happen the day after a rain. Large Infestations <ul style="list-style-type: none"> Cut stems and immediately paint surface with herbicide.
	<p>Autumn Olive</p>  <p><i>Elaeagnus umbellata</i></p>	<p>Autumn olive is a deciduous shrub that can grow to 20 ft. in height. Its stems, buds and leaves have a dense covering of silvery scales. Leaves are alternate, deciduous, egg or lance-shaped, smooth margined, dull green above and often with brown scales beneath.</p> <p>Flowers occur in June and July. They are aromatic, pale yellow, and fused at the base with 4 petals that are pointed at the tips. Fruits are produced from August through October. They are small, red-brown to pink, dotted with brown or silvery scales, and abundant.</p>	<p>Threatens native ecosystems by outcompeting and displacing native plant species, creating dense shade and interfering with natural plant succession and nutrient cycling. Fruit is eaten and spread by birds, small rodents, and deer. Decline in migratory songbirds could be related to pre-migration feeding on low nutrition berries.</p>	<ul style="list-style-type: none"> Mechanical Control <ul style="list-style-type: none"> Hand pull making sure to remove all roots. Chemical Control <ul style="list-style-type: none"> <i>Cut Stem</i>: Apply herbicide when trees are moving resources to roots. <i>Low Volume Foliar</i>: Done in the fall on small saplings.
	<p>Burning Bush</p>  <p><i>Euonymus alatus</i></p>	<p>Burning bush is a deciduous bushy shrub in the bittersweet family that grows to 15 to 20 ft. tall and equally as wide. It is multi-stemmed with a broad closed crown. The green to brown stems have two to four prominent corky wings.</p> <p>Elliptic leaves, which turn bright red in the fall before dropping, are simple, opposite or sub-opposite, 1 to 3 inches long and 1/2 to 1 1/4 inches wide with finely toothed margins.</p> <p>Small green inconspicuous flowers with 4 petals occur from May to early June. Small smooth red-orange fruits appear as stemmed pairs in leaf axils and turn purple in fall.</p>	<p>Spread by birds, uneaten fruits often leave a "seed shadow" of young seedling around the base of the shrub. Abundant foliage and sprawling stems shade out native tree species, wildflowers, and grasses, etc., many which have specific pollinators or have unique relationships intertwined with the needs of native insects, birds or animals.</p>	<ul style="list-style-type: none"> Mechanical Control <ul style="list-style-type: none"> Hand pull from base of stem and hang from branch to prevent re-rooting. Cut stem and cover tightly with thick plastic or burlap. Cut back new sprouts yearly. Chemical Control <ul style="list-style-type: none"> <i>Cut Stem</i>: Apply herbicide when trees are moving resources to roots. Cut plant 4 inches from ground. Apply herbicide to fresh cut within an hour. <i>Low Volume Foliar</i>: Done in the fall when native plants are losing their leaves and before nutrient storage in roots begins. Do on calm windless days.
	<p>Common Buckthorn</p>  <p><i>Rhamnus cathartica</i></p>	<p>Common buckthorn is a shrub or small tree in the buckthorn family that can grow to 35-40 ft. in height with a 10 inch diameter trunk.</p> <p>Mature plants have a spreading, irregular crown shape and rough, grey to brown bark. The inner bark is yellow and heartwood is pink to orange.</p> <p>Twigs are often tipped with a spine. Leaves are broadly oval and rounded or pointed at the tip with 3-4 pairs of up curved veins and jagged, toothed margins. Leaves appear dark, glossy green on the upper surface and stay green late into fall. In spring, dense clusters of 2 to 6, yellow-green, 4-petaled flowers emerge from stems near the bases of leaf stalks. Small black fruits forming in the fall contain 3-4 seeds.</p>	<p>Buckthorn berries contain emodin, a natural laxative, that prevents mammals from digesting sugars found in the berries.</p> <p>Buckthorn can increase nitrogen levels in the soil impacting the composition of native species that can grow in the area.</p>	<ul style="list-style-type: none"> Mechanical Control <ul style="list-style-type: none"> Hand pull from base of stem and hang from branch to prevent re-rooting. Cut stem and cover tightly with plastic. Chemical Control <ul style="list-style-type: none"> <i>Cut Stem</i>: Apply herbicide in fall when plants are moving resources to roots. <i>Low Volume Foliar</i>: Done in the fall.
	<p>Glossy Buckthorn</p>  <p><i>Rhamnus frangula</i></p>	<p>Glossy buckthorn is a shrub or small tree growing to a height of 10-25 ft. Trunks grow up to 10 inches in diameter, and the bark is gray or brown with prominent, closely spaced lenticels.</p> <p>Simple, alternate leaves are ovate to elliptic with toothless margins, papery, dark green, and have a shiny upper surface and a dull, hairy or smooth lower surface.</p> <p>Pale yellow flowers, that bloom from May to the first frost, have 5 petals and grow solitary or in clusters on the leaf axis. Red to dark purple pea-sized fruit ripen from July to September. Glossy buckthorn is a prolific producer of berries that attract birds that spread the seeds. Seeds remain viable in the soil for 2 to 3 years.</p>	<p>Buckthorn berries contain emodin, a natural laxative, that prevents mammals from digesting sugars found in the berries.</p> <p>Buckthorn can increase nitrogen levels in the soil impacting the composition of native species that can grow in the area.</p>	<ul style="list-style-type: none"> Mechanical Control <ul style="list-style-type: none"> Hand pull from base of stem and hang from branch to prevent re-rooting. Cut stem and cover tightly with plastic. Chemical Control <ul style="list-style-type: none"> <i>Cut Stem</i>: Apply herbicide in fall when plants are moving resources to roots. <i>Low Volume Foliar</i>: Done in the fall.
	<p>Japanese Barberry</p>  <p><i>Berberis thunbergii</i></p>	<p>Japanese barberry is a compact, spiny, deciduous shrub in the barberry family that commonly grows from 2 to 3 feet tall (although it can grow up to six feet in height).</p> <p>Leaves are smooth-edged, oval to spoon-shaped, and are clustered in tight bunches close to the branches. Yellow flowers bloom in May, are about 1/3 of an inch wide, and are solitary or in small clusters of 2-4 blossoms.</p> <p>Individual stems reach toward the ground and "layer", developing new plants.</p>	<p>Barberry infestations can lead to increased rates of deer ticks and Lyme disease.</p> <p>The relatively humid air under a barberry bush is an ideal place for non-native earthworms to thrive, depleting organic matter quickly (<5 years). This leads to bare mineral soil and increased erosion potential.</p> <p>Recent research studies in New Jersey indicated that Japanese barberry changes the soil chemistry in the environment it inhabits.</p>	<ul style="list-style-type: none"> Mechanical Control <ul style="list-style-type: none"> In moist soil hand pull from base of stem and hang from branch to prevent re-rooting. Cut stem and cover tightly with thick plastic or burlap. Cut back new sprouts yearly. Chemical Control <ul style="list-style-type: none"> <i>Cut Stem</i>: Apply herbicides when trees are moving resources to roots. Cut plant 4 inches from ground. Apply herbicide to fresh cut within an hour. <i>Low Volume Foliar</i>: Done in the fall when native plants are losing their leaves. Do on calm, windless days.
	<p>Morrow's Honeysuckle</p>  <p><i>Lonicera morrowii</i></p>	<p>Morrow's honeysuckle is a deciduous, upright, arching-branched shrub that grows to 6.5 ft. in height. Its stem is opposite branched and light tan with a braided-strand appearance. Bark is often flaking (light brown and shaggy), and older branches are hollow. Leaves, which persist in winter, are opposite in two-rows, ovate to oblong, and up to 4 in. long. They have entire margins, short pointed tips, wrinkled upper surfaces, and soft-hairy lower surfaces.</p> <p>Fragrant flowers appear from February to June in axillary, bracted short-stemmed clusters, each with one to several white to yellow (some pink to red) flowers with five extended stamens. Abundant spherical, glossy berries paired in leaf axils occur from June to February. They are green becoming pink and ripening to red (sometimes yellow or orange) and usually persist in winter.</p>	<p>Dense growth of honeysuckle covering vegetation can gradually kill plants by blocking sunlight from reaching their leaves. Vigorous root competition also helps honeysuckle spread and displace neighboring native vegetation.</p> <p>Several other species of invasive honeysuckle closely resemble Morrow's honeysuckle. They all shade out native vegetation.</p>	<ul style="list-style-type: none"> Mechanical Control <ul style="list-style-type: none"> Hand pull making sure to remove all roots. Hang from branch to prevent re-rooting. Chemical Control <ul style="list-style-type: none"> <i>Cut Stem</i>: Apply herbicide when shrubs are moving resources to roots. <i>Low Volume Foliar</i>: Done in the fall on small saplings.
	<p>Multiflora Rose</p>  <p><i>Rosa multiflora</i></p>	<p>Multiflora rose is a thorny, perennial shrub in the rose family. It grows to 10-15 ft. in height and 9-13 ft. in width.</p> <p>Its stems are wide arching canes covered with hard thorns.</p> <p>Leaves are alternate, pinnately compound, and have 5 to 11 sharply toothed oval leaflets. Clusters of showy, fragrant, white to pink flowers are 0.5-1 inch wide with 5 petals begin blooming in May or June.</p> <p>Small bright red fruits, or rose hips, develop during the summer, become leathery, and remain on the plant through the winter. Multiflora rose reproduces by seed and from tips of arching canes that contact the ground.</p>	<p>Extremely prolific and can form impenetrable thickets that exclude native plant species.</p> <p>Individual plants may produce up to 500,000 seeds per year. The majority of seedlings emerge near the parent plant from which the seeds fell. In addition, many species of birds and mammals feed on the hips, dispersing the seeds widely. The canes are also capable of rooting when in contact with soil.</p>	<ul style="list-style-type: none"> Mechanical Control <ul style="list-style-type: none"> Hand pull. Hang from branch to prevent re-rooting. Repeated mowing of 2-4 years or bulldoze. Chemical Control <ul style="list-style-type: none"> <i>Cut Stem</i>: Apply herbicide in the fall when trees are moving resources to roots. <i>Low Volume Foliar</i>: Done in the fall on small saplings.
	<p>Norway Maple</p>  <p><i>Acer platanoides</i></p>	<p>Norway maple is a deciduous tree growing 40-60 ft. or more in height. Its bark is grayish and shallowly grooved or furrowed.</p> <p>Palmate leaves are opposite and 4-7 inches across with 5 to 7 sharply pointed lobes.</p> <p>It has dense foliage, a broad-rounded crown, and stout stems. The glossy dark green leaves, which often have hairs in axils of veins, develop into yellow fall foliage. A milky sap can be observed from the leaf petiole when removed from the stem. In spring, showy clusters of yellow or greenish-yellow flowers develop before leaves open. It has wide angled fruit.</p>	<p>Hosts very few native caterpillars which are an important food source for birds. Native animals don't recognize the seeds as a food source which in turn leads to more browsing on native seeds.</p> <p>Provides desirable habitat for the maple killing Asian Longhorned Beetle which also infests and kills native maples and other native trees.</p> <p>The allelopathic effect of the root system inhibits native species.</p>	<ul style="list-style-type: none"> Mechanical Control <ul style="list-style-type: none"> Hand pull. Hang from branch to prevent re-rooting. Cut Stem and cover tightly with plastic. Chemical Control <ul style="list-style-type: none"> <i>Cut Stem</i>: Apply herbicide when trees are moving resources to roots. <i>Low Volume Foliar</i>: Done in the fall on small saplings.