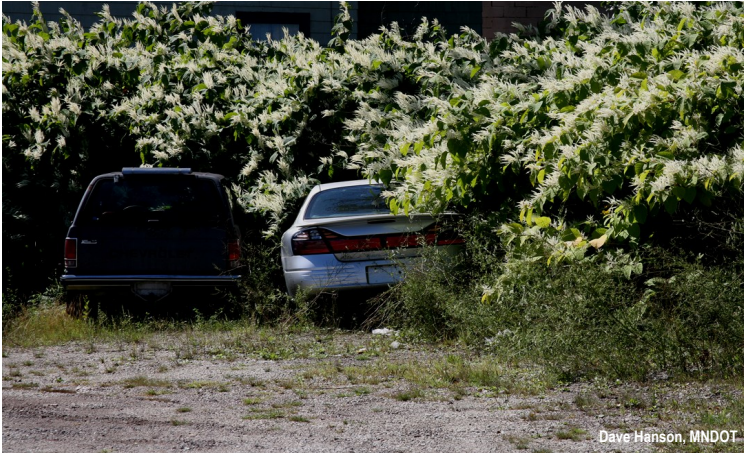


KNOTWEEDS
(*Fallopia japonica* & *F. xbohemica*)
(formerly *Polygonum cuspidatum* & *P. xbohemicum*)
Locally referred to as: Bamboo, Japanese & Bohemian Knotweed



Herbaceous perennial reaching up to 12 ft;
Forms dense thickets that stand through winter.

LEAVES: Up to 6 in long and 5 in wide.
STEMS: Upright, round, hollow, wide; stems resemble bamboo.
FLOWERS: Small, numerous, whitish to pinkish, mostly in September.
HABITAT: Semi-shade tolerant; roadsides, stream banks, wetlands, wet depressions and woodland edges
IMPORTANT CONSIDERATIONS: Can damage pavement & walls. Research control options thoroughly. Grows back vigorously after cutting, mowing, tilling and digging. Fragments of roots and stems can sprout and form new colonies. Difficult to eradicate. **Do not compost.** Permits are usually required for both herbicide use and mechanical control near water bodies and in wetlands. "SPECIALLY REGULATED" under MN law as of 2018.

GARLIC MUSTARD (*Alliaria petiolata*)



Herbaceous biennial (2 year life cycle).
All parts smell like garlic when crushed.

LEAVES: Heart shaped, scalloped-edged at ground level in first year, stay green under the snow; triangular and toothed along upright stem in second year.
STEMS: Up to 4 ft; one or more flowering stem per plant.
FLOWERS: Numerous, small, white, 4 petals, clusters at tops of stems; May through early July. Narrow green seed pods later dry and shatter.
HABITAT: Upland and floodplain forests, along trails & roadsides; disturbed areas. Very shade tolerant but also found in full sun.
IMPORTANT CONSIDERATIONS: Pull seedlings when there are only a few, otherwise focus on second year plants. Pull plants before seed pods split. Remove upper half of root or it may re-sprout. Herbicide can be used in early spring and late fall, while native plants are dormant. Repeat control efforts until the seed bank is depleted (at least 5 years). **Do not compost (except seedlings).** Plants with flowers or pods must be burned or placed in a landfill to prevent seed development. "RESTRICTED" under MN law as of 2018.

WILD PARSNIP (*Pastinaca sativa*)

Biennial or short-lived perennial herb up to 5 ft tall, with a thick taproot
Genetic variant of the garden parsnip



LEAVES: Grow from ground level on young plants, each with 5–15 egg-shaped leaflets. As tall stems grow, their upper leaves are smaller.
STEMS: Yellowish-green, hollow, with deep grooves running full length.
FLOWERS: Tiny, numerous, yellow, in wide flat-topped cluster June–August. Each flower forms a flattish oval seed ¼ inch long.
HABITAT: Sunny areas with varying degrees of soil moisture.
IMPORTANT CONSIDERATIONS: **Hazardous!**

Sap is a skin irritant and can cause painful rash and blistering! Do not cut with a weed-whacker. Wear long sleeves, pants, and gloves when pulling, and clean them carefully. Do not compost if seeds have started to be visible. "CONTROL" under MN law as of 2018.



LEAFY SPURGE (*Euphorbia virgata*)
(formerly *Euphorbia esula*)

Herbaceous perennial up to 3.5 ft
Milky sap appears if stem is broken or a leaf is removed

LEAVES: Lance shaped, bluish-green, smooth, up to 4 in long, singly along the stem, becoming shorter toward the top of the stem.
STEM: Smooth, slender but tough near base.
FLOWERS: Tiny, cupped by larger yellow-green bracts; June–Fall. Form tiny capsules that explode and shoot seeds 15 ft away.
HABITAT: Roadsides, pastures, and other open areas. Strong competitor in dry soil, less competitive in damp ground. Spreads below ground to form large colonies.
IMPORTANT CONSIDERATIONS: Sap irritates many people; use gloves when pulling because stems break. Biological control beetles can be used to reduce vigor on drier soils, but will not eliminate the plants. Difficult to eradicate because of deep roots. "CONTROL" under MN law as of 2018.



KNAPWEEDS (*Centaurea* species)



Several species, each having multiple rows of bracts below the flower cluster; biennials or short-lived perennials.

LEAVES: Grow from ground level on young plants, then singly along the upright stems. Depending on species, leaves may be deeply lobed or not; they are not prominently toothed. Hairiness varies.
STEMS: Slender, tough, up to 3 ft tall.
FLOWERS: Tight clusters; pink, purple, or white, July–September. Bracts at base of cluster vary among species in darkness and shape of appendages, as well as diameter of the whole cluster of bracts.
HABITAT: Sunny sites: hayfields, pastures, roadsides, railroads, gravel pits. Often in dry ground.
IMPORTANT CONSIDERATIONS: Mowing late in the growing season will spread seeds. Biological control insects are available. Use gloves to pull. "ERADICATE & CONTROL" under MN law as of 2018.

NON-NATIVE PHRAGMITES
(*Phragmites australis* subspecies *australis*)
Other Name: Non-native common reed

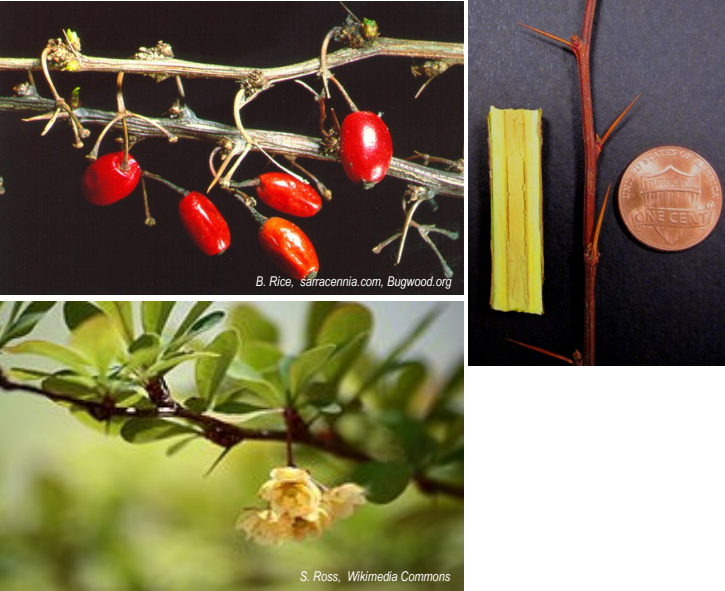
Warm-season perennial grass 6–15 ft tall, dense, impenetrable stands
Native phragmites similar, but not as tall or dense

LEAVES: Flat, smooth leaf blades, 10–20 in long, 0.5–1.5 in wide, green to blue-green. Leaf sheath usually clings to stem after blade dies and falls. Sheath drops off promptly from native phragmites.
STEMS: Upright, ridges on stem and hollow; persisting in winter, when its lower part is dull yellowish or tan. Native stems are shinier and reddish to purplish at the base, but fade to tan during winter, often have dark spots.
FLOWERS: Raised branched clusters at the top of each stem, becoming open and feathery at maturity. Native clusters are less fully feathery.
HABITAT: Wetlands, ditches, shores of streams, ponds, lakes; disturbed sites.
IMPORTANT CONSIDERATIONS: Burning, mowing, disking and digging may stimulate populations, making the problem worse, and are not recommended. Foliar herbicide treatment in late summer or fall provides effective control for large dense stands. Permits are usually required for both mechanical control and herbicide use near water and wetlands. "RESTRICTED" under MN law as of 2018.



Feel stem for ridges
Non-native: Ridges
Native: No Ridges

JAPANESE BARBERRY (*Berberis thunbergii*)



Dense deciduous shrub, rounded outline, usually 3–6 ft tall
Commonly planted ornamental

LEAVES: Small, smooth-edged, oval to spatula shaped, in tight bunches close to the branch; green, or reddish/purplish in some cultivated varieties.
STEMS: Brown, reddish, or purplish, smooth, grooved, with a spine at each leaf cluster. Wood is bright yellow.
FLOWERS: Pastel yellow, dangling singly or in small clusters, May.
FRUITS: Bright red, longer than wide, singly or in clusters. Fruits ripen in mid-summer and hang through the winter.
HABITAT: Can spread into various sites, including shady areas
IMPORTANT CONSIDERATIONS: Some cultivated varieties are allowed to be planted, but these are being phased out. Dense thickets of these plants tend to promote locally high numbers of black-legged ticks (“deer ticks”), which spread diseases to humans and dogs. “CONTROL” under MN law as of 2018.

WHAT CAN YOU DO?

Learn to identify invasive plants:
Midwest Invasive Plant Network (www.mipn.org)
MN Department of Agriculture (www.mda.state.mn.us)

Report new sightings:
EDDMapS Midwest (www.eddmaps.org/midwest)
GLEDN (apps.bugwood.org/apps/gledn)

Prevent the spread:
Never plant invasive species.
Control invasive plants on your property, then clean tools & footwear
Follow MN weed laws that regulate handling & control

Perform control:
See www.mipn.org & www.mda.state.mn.us control methods.
If using herbicides always follow the label instructions

For local information:
www.stewardshipnetwork.org/duluth

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ORIENTAL BITTERSWEET (*Celastrus orbiculatus*)



Deciduous woody climbing vine

LEAVES: Rounded to oblong, 2–5 in long, rounded teeth, leaf tips pointed; bright yellow in fall.
STEMS: Light brown, becoming woody as plant ages, can climb 60 ft high in trees and reach 4 in wide, strangles trees.
FLOWERS: Small, greenish yellow, 5-petaled, clustered, May and June. Pollen white. Native bittersweet has yellow pollen.
FRUITS: Yellow capsules along branches split to expose bright red seeds. Native bittersweet has fruits only at branch ends, orange capsules.
HABITAT: Grasslands, open woods, woodland edges, undisturbed forests, roadsides and fence rows; very shade-tolerant.
IMPORTANT CONSIDERATIONS: **Do not compost.** Dispose of cuttings by bagging and placing in landfill or incinerator. Seeds may be on decorative wreaths, so don’t display or discard them outdoors. Don’t ignore male plants. “ERADICATE” under MN law as of 2018.

NON-NATIVE BUSH HONEYSUCKLES (*Lonicera* species)

Other Names: Morrow, Tatarian, Bell’s Honeysuckle

Three similar species of multi-stemmed deciduous shrubs up to 12 ft tall

LEAVES: In pairs, oval or oblong, smooth edges, up to 2.5 in long. Hairiness varies.
STEMS: Bark shaggy. tan-gray. Twigs are hollow, whereas native bush honeysuckles have solid twig centers. Branches spread at low angles from the base. Winter buds stubby, in pairs.
FLOWERS: In pairs, ½ in long, white, yellow, or pink. Late May–June.
FRUITS: In pairs, spherical, ¼ in across, yellow, orange, or red. Not edible.
HABITAT: Old fields, floodplains, forest edges and roadsides. Does not thrive in deep shade. Can survive on shallow soils.
IMPORTANT CONSIDERATIONS: Fruits usually gone by fall. Common buckthorn often found establishing under bush honeysuckles. Roots are shallow, smaller plants can be pulled out of loose soils. “RESTRICTED” under MN law as of 2018.



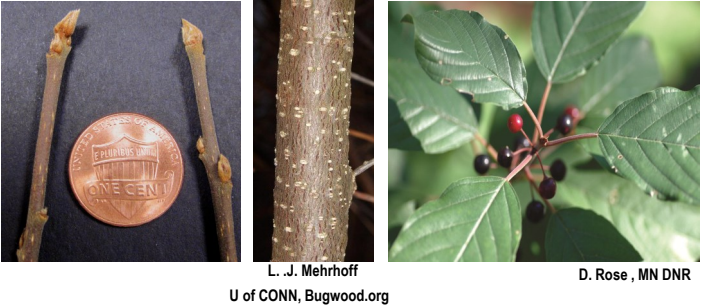
COMMON BUCKTHORN



Upright deciduous shrub to small tree, up to 25 ft tall

LEAVES: Oval, edged with small teeth, in pairs or slightly offset pairs. Usually three main veins on each side of midrib. Stay green late into fall.
STEMS: Bark on young stems slightly shiny; rough on older stems. Gashed bark reveals yellow-orange inner bark. Many twigs end in sharp thorns. Winter buds scale-covered, pointed, darker than twig bark, in pairs or slightly offset pairs.
FLOWERS: May–June; inconspicuous. Male and female flowers on separate trees.
FRUITS: Clusters of ¼ inch fruits ripen from green to black on female plants August–September. Each fruit has up to four seeds, often hangs through winter.
HABITAT: Almost anywhere without standing water, including rock outcrops. Rather shade-tolerant.
IMPORTANT CONSIDERATIONS: Buckthorn cut without herbicide applied to the stump will regrow. Young plants are shallow-rooted, can be pulled by hand **Do not compost cuttings with fruits.** Fruits are strongly laxative if eaten. “RESTRICTED” under MN law as of 2018.

GLOSSY BUCKTHORN (*Frangula alnus*) (formerly *Rhamnus frangula*)



Upright deciduous shrub to small tree, up to 20 ft tall. Not thorny, but is in buckthorn family

LEAVES: Smooth-edged, oval, singly along twigs. More than three veins on each side of midrib. Upper side is glossy.
STEMS: Bark medium brown-gray, with lighter horizontal warts. Gashed bark reveals yellow-orange inner bark. Thornless. Winter buds not covered with bud scales, lighter than twig bark, singly along twigs.
FLOWERS: May–June; inconspicuous. Male and female parts in same flower.
FRUITS: ¼ inch fruits ripen from green to reddish, then black, August–September. Each fruit has up to three seeds, seldom hangs through winter.
HABITAT: Damp soil, often among speckled alder, spreading to drier places from there.
IMPORTANT CONSIDERATIONS: Buckthorn cut without herbicide applied to the stump will regrow. Young plants are shallow-rooted, can be pulled by hand **Do not compost cuttings with fruits.** Fruits are strongly laxative if eaten. “RESTRICTED” under MN law as of 2018.

GOT INVASIVE PLANTS?

GET RID OF ‘EM!

NORTHEASTERN MN
FIELD GUIDE



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THREAT
To our health, economy, &
environment



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