The DNR NR-40 Rule and Invasive Plants

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What is an Invasive Species in Wisconsin?

- Introduction causes or is likely to cause economic or environmental harm or harm to human health
- Includes individual specimens, eggs, larvae, seeds, propagules and any other viable life stages of a species
- Estimate about 1% of introduced species have become invasive (Groves 1986)
- ♦ Non-native species including hybrids, cultivars, sub-specific taxa and genetically modified variants
- Can grow under a wide range of conditions, tolerates management
- May spread by rhizomes, suckers
- Success due to lack of native predators and competitors in new environment
- Shading of native understory plants
- ♦ Out-compete native plant species
- ♦ Faster growth rate over longer growing season
- Reproduce at an earlier age with large amounts of fruit and seed produced
- Long seed viability in soil

WI-DNR NR-40 Rule for Invasive Species

- ♦ In 2001, Wisconsin Legislature directed DNR to establish statewide program to disseminate rules to identify, classify and control invasive species
- ♦ By 2004, Wisconsin Council on Invasive Species formed to assist DNR
- Sept. 1, 2009, DNR created Wisconsin's Invasive Species Identification, Classification and Control Rule (NR 40 Rule)
 - Established species assessment groups (SAG) for reviewing woody, herbaceous and aquatic plants
 - Prevention of <u>new</u> invasive species from establishing in state
 - Early detection, quarantine and eradication
- ♦ For <u>Prohibited</u> invasive species:
 - Species not in state yet or only a few places
 - ♦ Likely to cause environmental and/or economic harm
 - Eradication of species and prevention feasible
 - ♦ Cannot transport, possess, transfer or introduce the species without a DNR permit
 - Control is required, DNR may order control effort
- ♦ For Restricted invasive species:
 - Species already widely established in state
 - ♦ High environmental and/or economic impacts evident
 - ♦ Complete eradication of species is unlikely
 - ♦ Cannot transport, transfer or introduce the species without a DNR permit
 - ◆ Can possess invasive plant, control is not required, but highly encouraged to prevent further spread
 - ♦ Educate the industry and public so these species are no longer grown or used in landscape
 - ♦ Includes phase-out periods for industry from listing date
 - ♦ 3 years for herbaceous plants and woody vines
 - 5 years for trees and shrubs

What About Using Only Native Plants?

- Argument for using native plants only
 - ✓ Seed propagated material to ensure genetic diversity of natives
 - ✓ Increased allergies from pollen of predominantly male cultivars
 - ✓ Not invasive
 - ✓ Better adapted to soil, environment
 - ✓ Drought tolerant, require less water
 - ✓ Pest resistant, less fertilizer, pesticides
- Numerous exceptions to this rule!
- ♦ Urban soils are not native!

Species known to be invasive in the Midwestern and northeastern U.S.:

- Wisconsin DNR NR-40 Rule List of Invasive Species: P = prohibited status; R = Restricted status https://dnr.wisconsin.gov/sites/default/files/topic/Invasives/NR40plantlist.pdf
- *Considered invasive per Midwest Invasive Plant Network: www.mipn.org. Many of the below plants are banned somewhere in the states of Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, but are not currently on the WI DNR NR-40 list yet, but some are currently in review
- ^Considered invasive per Massachusetts Prohibited Invasive Plant list (https://www.mass.gov/service-details/massachusetts-prohibited-plant-list)

Tree species known to be invasive in the Midwestern and northeastern U.S.:

^Acer campestre: hedge maple	Paulownia tomentosa: princess tree-P
*Acer platanoides: Norway maple	Phellodendron amurense: Amur corktree (male cultivars and seedling understock are exempt)-P
^Acer pseudoplatanus: sycamore maple	*Pinus sylvestris: Scots pine
Acer tataricum subsp. ginnala: Amur maple (all cultivars are exempt)-R	Populus alba: white poplar-R
Ailanthus altissima: tree-of-heaven-R	*Populus nigra var. italica: Lombardy poplar
*Albizia julibrissin: Japanese mimosa, silk tree	*Pyrus calleryana: callery pear
Alnus glutinosa: European black alder (all cultivars and hybrids are exempt)-R	Quercus acutissima: sawtooth oak-P
Elaeagnus angustifolia: Russian-olive-R	Rhamnus cathartica: common buckthorn-R
^Kalopanax septemlobus: castor-aralia	Robinia pseudoacacia: black locust (all cultivars are exempt)-R
*Maclura pomifera: osage-orange (female trees only)	^Ulmus parvifolia: lacebark elm
Morus alba: white mulberry (male cultivars are exempt)-R	Ulmus pumila: Siberian elm (rootstock and hybrids are exempt)-R

Shrub species known to be invasive in the Midwestern and northeastern U.S.:

Berberis: Korean barberry and Japanese barberry hybrids-R	*Lonicera × minutiflora: hybrid honeysuckle
Berberis thunbergii: Japanese barberry-R, applies to species, varieties, hybrids and many cultivars	Lonicera morrowii: Morrow's honeysuckle-R
Berberis vulgaris: common barberry-P	*Lonicera × notha: hybrid honeysuckle
Caragana arborescens: Siberian pea-shrub-R, 'Lorbergii', 'Pendula' and 'Walkerii' are exempt	*Lonicera standishii: Standish's honeysuckle
Cytisus scoparius: Scotch broom-P	Lonicera tatarica: Tartarian honeysuckle-R
Elaeagnus angustifolia: Russian-olive-R	*Lonicera × xylosteoides: European fly honeysuckle
*Elaeagnus pungens: thorny-olive	*Lonicera xylosteum: dwarf honeysuckle
Elaeagnus umbellata: autumn-olive-R	*Nandina domestica: heavenly bamboo
Euonymus alatus: burningbush-R, all cultivars are exempt except 'Nordine'	*Rhamnus arguta: sharp-tooth buckthorn
Fallopia × bohemica (formerly Polygonum bohemicum): Bohemian knotweed-P	Rhamnus cathartica: common buckthorn-R
Fallopia japonica (formerly Polygonum cuspidatum): Japanese knotweed-R	*Rhamnus davurica: Dahurian buckthorn
Fallopia japonica var. compacta: dwarf Japanese knotweed-R	*Rhamnus japonica: Japanese buckthorn
Fallopia sachalinensis (formerly Polygonum sachalinense): giant knotweed-P	*Rhamnus utilis: Chinese buckthorn
Frangula alnus (formerly Rhamnus frangula): glossy buckthorn-R, cultivars exempt except for 'Columnaris'	*Rhodotypos scandens: black jetbead
*Lespedeza bicolor: shrubby lespedeza	Robinia hispida: rose acacia, bristly locust-R
*Lespedeza cuneata: sericea or Chinese lespedeza	*Rosa canina: dog rose
*Ligustrum amurense: Amur privet	Rosa multiflora: multiflora rose-R
*Ligustrum japonica: Japanese privet	Rosa rugosa: rugosa rose, saltspray rose
*Ligustrum obtusifolium: border privet	Rubus bifrons (formerly Rubus armeniacus): Himalayan blackberry-P

*Ligustrum ovalifolium: California privet	Rubus phoenicolasius: wineberry-P
*Ligustrum sinense: Chinese privet	<i>^Salix cinerea</i> : large, gray willow and subsp. <i>oleifolia</i>
	(rusty willow)
*Ligustrum vulgare: European privet, common privet	*Sorbaria sorbifolia: Ural false-spirea
Lonicera × bella: Bell's honeysuckle-R	*Spiraea japonica: Japanese spirea
*Lonicera fragrantissima: fragrant honeysuckle	*Tamarix chinensis (formerly Tamarix ramosissima):
	salt-cedar, tamarisk
Lonicera maackii: Amur honeysuckle-P/R	*Viburnum opulus: European cranberrybush
·	viburnum

$\underline{\text{Vine or groundcover species known to be invasive in the Midwestern and northeastern}}\\ \underline{\text{U.S.}}:$

^Actinidia arguta: hardy kiwi, bower actinidia	^Fallopia baldschuanicum (formerly Polygonum baldschuanicum): Chinese fleeceflower, Russianvine
Akebia quinata: fiveleaf akebia, chocolate-vine-P	*^Hedera helix: English ivy (groundcover or vine)
Ampelopsis glandulosa var. brevipedunculata: porcelain berry-P	Humulus scandens (formerly Humulus japonicus): Japanese hops-P/R
Campsis radicans: trumpet-creeper	Lonicera japonica: Japanese honeysuckle-P
Celastrus rosthornianus (formerly Celastrus loesneri): Asian loeseneri bittersweet-P	Persicaria perfoliata (formerly Polygonum perfoliatum): mile-a-minute vine-P
Celastrus orbiculatus: Oriental bittersweet-R	Pueraria montana var. lobata: kudzu-P
*^Clematis terniflora: sweet autumn clematis	*^Solanum dulcamara: bittersweet nightshade
^Clematis vitalba: old man's beard	*^ <i>Vinca minor</i> : vinca, periwinkle, myrtle (groundcover)
*^Convolvulus arvensis: field bindweed	Vincetoxicum nigrum (formerly Cynanchum louiseae): black swallow-wort-P/R
Dioscorea polystacha (formerly Dioscorea batatas): Chinese yam-P	Vincetoxicum rossicum (formerly Cynanchum rossicum): pale swallow-wort-P
Dioscorea oppositifolia: Chinese or Indian yam-P	Wisteria floribunda: Japanese wisteria-P
*^Euonymus fortunei: purpleleaf wintercreeper (groundcover or vine)	Wisteria sinensis: Chinese wisteria-P
Fallopia aubertii (formerly Polygonum aubertii): silver fleece vine, silver lace vine	