Chequamegon-Nicolet National Forest Invasive Plant List - 2023 Version

Invasive non-native plant species can transform or dominate native plant communities. Disturbed areas tend to be more susceptible to the invasion and retention of many weed species. Activities that disturb the ground, such as road and trail building or skidding timber, create an environment that encourages the establishment of Non-native Invasive Plants (NNIP). Seeds from these plants can spread via equipment, motor vehicles, humans, animals, and wind.

Non-native Invasive Plants (NNIP) on this list have been categorized according to their risk to native ecosystems and landscapes with consideration given to the economic feasibility of control management, along with the plant species biology, their ability to outcompete native species, the ability to change their environment, and the proximity to ecosystems where the NNIP are most aggressive.

This list prioritizes NNIP based on the species' risk to the natural vegetative community and threats to native ecosystems and landscapes. For example, spotted knapweed (*Centaurea biebersteinii*) is most aggressive in sunny, open environments, occurring on well-drained soils. Thus, spotted knapweed infestations occurring in barren ecosystems where soils are well-drained are prioritized above spotted knapweed infestations occurring in shaded forested ecosystems containing heavy soils. In addition, any plant species listed in the Wisconsin State Rule NR-40 discovered on Chequamegon-Nicolet National Forest (CNNF) lands may receive priority treatment as part of the rapid response outlined in the CNNF NNIS Strategy.

Category A: These non-native invasive plant species found on national forest lands can aggressively outcompete native vegetation by altering the environment and are known to occur within the proximity of suitable native ecosystems. Any plant species listed in the Invasive species rule – NR 40 | | Wisconsin DNR discovered on CNNF lands may receive priority treatment as part of the rapid response outlined in the CNNF NNIS Strategy.

Table 1. Non-native invasive plant species that aggressively outcompetes native vegetation.

Category A			NR-40 Class
1.	**Bishop's goutweed**	Aegopodium podagraria	**R**
2.	**Garlic mustard**	Alliaria petiolata	**R**
3.	**Wild chervil (Cow parsley)**	Anthriscus sylvestris	**P/R**
4.	**Japanese barberry**	Berberis thunbergii	**R**
5.	**Spotted knapweed**	Centaurea biebersteinii	**R**
6.	**Brownray knapweed**	Centaurea jacea	**R**
7.	**Cypress spurge**	Euphorbia cyparissias	**R**
8.	**Leafy Spurge**	Euphorbia esula	**R**
9.	**Japanese knotweed**	Fallopia japonica (Polygonum cuspidatum)	**R**
10.	**Yellow archangel**	Lamiastrum galeobdolon	**Under review**
11.	**Perennial pea**	Lathyrus latifolius	
12.	**Dalmatian toadflax**	Linaria dalmatica	**P/R**
13.	**Asiatic honeysuckles**	Lonicera tatarica, Lonicera morrowii, and Lonicera x bella (CNNF rarely differentiates to spp)	**R**
14.	**Purple Loosestrife**	Lythrum salicaria	**R**
15.	**Lesser celandine**	Ranunculus ficaria	**P**

Category A			NR-40 Class
16.	**Common Buckthorn**	Rhamnus cathartica	**R**
17.	**Glossy Buckthorn**	Rhamnus frangula (Frangula alnus)	**R**
18.	**Erect Hedge Parsley** / Japanese hedgeparsley	Torilis japonica	**P/R**
19.	**Garden valerian**	Valeriana officinalis	**R**

Chapter NR-40 WI State Rule Adopted April 22, 2009, revised on May 1, 2015, Invasive species rule – NR 40 | | Wisconsin DNR.

R-Restricted*: Department of Natural Resources (DNR) bans this vegetation from transport, transfer (sale), and introduction; no control requirements.*
P-Prohibited*: Department of Natural Resources (DNR) bans this vegetation from transport, transfer (sale), introduction, and possession. Department of Natural Resources (DNR) may enter the property with permission to inspect or control, issue control orders, and bill for the same.*

Category B - These non-native invasive plant species are known to occur on National Forest lands, but the invasion of natural communities is uncertain. Treatment may be warranted when other resources (e.g., wildlife openings) or safety (e.g., potential for chemical burns) are at risk. Infestations will be recorded, mapped, monitored, and controlled under certain circumstances if they meet Category A criteria. When CNNF NNIP staff discover new species, this list will change.

Table 2. Non-native invasive plant species that the invasion of natural communities is uncertain.

Category B			NR 40 class
1.	**Flowering Rush**	Butomus umbellatus	**R**
2.	**Creeping bellflower**	Campanula rapunculoides	**R**
3.	**Canada thistle**	Cirsium arvense	**R**
4.	**European swamp thistle**	Cirsium palustre	**R**
5.	**Bull Thistle**	Cirsium vulgare	
6.	**Purple crown vetch**	Coronilla varia	**R**
7.	**Sweet William**	Dianthus barbatus	
8.	**Cut-leaf teasel**	Dipsacus laciniatus	**R**
9.	**Russian Olive**	Elaeagnus angustifolia	**R**
10.	**Autumn Olive**	Elaeagnus umbellata	**R**
11.	**Helleborine orchid**	Epipactis helleborine	**R**
12.	**Brittle-stem hemp nettle**	Galeopsis tetrahit	**R**
13.	**White bed straw**	Galium mollugo	**R**
14.	**Dame's Rocket**	Hesperis matronalis	**R**
15.	**Orange Hawkweed**	Hieracium aurantiacum	
16.	**Yellow Hawkweed**	Hieracium caespitosum	
17.	**St. John's-wort**	Hypericum perforatum	
18.	**Pale yellow iris**	Iris pseudacorus	**R**
19.	**Field scabiosa**	Knautia arvensis	**R**
20.	**Butter-and-eggs**	Linaria vulgaris	
21.	**Creeping Jenny**	Lysimachia nummularia	**R**
22.	**White Sweet-clover**	Melilotus alba	**R**
23.	**Yellow Sweet-clover**	Melilotus officinalis	
24.	**True forget-me-not**	Myosotis sylvatica	**R**
25.	**Woodland forget-me-not**	Myosotis scorpioides	**R**
26.	**Eurasian watermilfoil**	Myriophyllum spicatum	**R**
27.	**Wild parsnip**	Pastinaca sativa	**R**

Category B			NR 40 class
28.	**Reed canary grass**	Phalaris arundinacea	**R***
29.	**Common reed**	Phragmites australis	**P/R**
30.	**Burnet saxifrage**	Pimpinella saxifraga	**R**
31.	**Curly pondweed**	Potamogeton crispus	**R**
32.	**White poplar**	Populus alba	**R**
33.	**Lesser celandine**	Ranunculus ficaria	**P**
34.	**Bristly locust**	Robinia hispida	**R**
35.	**Black locust**	Robinia pseudoacacia	**R**
36.	**Common tansy**	Tanacetum vulgare	**R**
37.	**Narrow-leaved cattail**	Typha angustifolia	**R**

*Cultivars only

Category C - These Non-native invasive plant species have been known to occur on National Forest lands and have been treated and controlled. While eradication of the species is presumed, these plant species may still reappear. Thus, these NNIPs are considered "watch" species.

Table 3. Non-native invasive plant species that have been treated and controlled.

Category C			NR40 class
1.	Siberian pea	Caragana arborescens	**R**
2.	Musk thistle	Carduus nutans	**R**
3.	Oriental bittersweet	Celastrus orbiculatus	**R**
4.	Amur cork tree	Phellodendron amurense	**P**

Control Objectives: One or more may apply to each "A" list species.

- **Eradicate** - Various methods can eliminate many invasive species, but this may take a long time.
- **Suppress** - Eradication of small populations is feasible. However, large and widespread populations are beyond reasonable eradication methods. We will accept low levels of these weeds.
- **Contain** (confine) - We will prevent these species' spreading beyond certain areas' perimeter. These species will be suppressed or eradicated in some areas but tolerated outside those areas.
- **Tolerate** - Accept the continued presence of established infestations and the probable spread to ecological limits for certain species. We will try to exclude new infestations through prevention practices.

Ecological Information CNNF Non-Native Invasive Species

Plants in Category A			
Species	**Vectors**	**Habitat**	**Effect**
Bishop's goutweed Aegopodium podagraria	Human-garden escapee.	Open areas and old home sites.	Forms dense patches that exclude other plants.
Garlic mustard Alliaria petiolata	Transported by equipment, vehicles, clothing, and wildlife.	Shaded mesic forest, roadsides, and trails.	Dominates the forest floor, and may negatively impact some butterfly species including the rare West Virginia White. Known to inhibit critical mycorrhizal fungi.
Wild chervil (cow parsley)	Ornamental plant. Sometimes found in European	Roadsides.	Invades roadsides, open woods, fields, and pastures. It is a host to the parsnip

Plants in Category A			
Anthriscus sylvestris	wildflower seed mixes		yellow fleck virus, which infects carrots, celery, and parsnips.
Japanese barberry Berberis thunbergii	Seeds dispersed by birds & mammals, and human planting.	Shaded areas, forests, woodlands, and edges.	Limits the growth of herbaceous and woody species by shading out. Increased nest predation. Changes in soil properties and nutrient cycling.
Spotted knapweed Centaurea biebersteinii (other Centaurea species possible)	Seeds are transported by equipment, humans, wildlife, fill, gravel, and soil.	Open - grasslands, barrens, gravel pits, roadsides. Spreads readily following disturbances.	Outcompetes native plants. Reduces wildlife grazing, and increases surface runoff and sedimentation.
Brownray knapweed Centaurea jacea	Seeds are transported by equipment, humans, wildlife, fill, gravel, and soil.	Open - grasslands, barrens, gravel pits, roadsides. Spreads readily following disturbance.	Outcompetes native plants. Reduces wildlife grazing, and increases surface runoff and sedimentation.
Cypress spurge Euphorbia cyparissias	Seeds and soil are transported by tires, equipment, shoes, and animal fur.	Variety of soils in open habitat – but grows most vigorously in dry sandy soils.	Outcompetes native species, and is possibly allelopathic.
Leafy Spurge Euphorbia esula	Seeds and soil are transported by tires, equipment, shoes, and animal fur.	Variety of soils in open habitat – but grows most vigorously in dry sandy soils.	Outcompetes native species, and is possibly allelopathic.
Japanese knotweed Fallopia japonica	Human–garden escapee. Rivers carry viable plant parts.	Open road edges, and edges of woods, lakeshores, and riverbanks.	An aggressive vegetative spreader, it forms dense thickets, and shades out all other plants.
Yellow archangel Lamiastrum galeobdolon	Human – garden escapee. Moved by disposing of garden waste in natural areas.	Grows in most conditions from part sun to full shade in many types of soil but prefers moist soil.	It spreads by root fragments or through the spreading of its numerous seeds. Hand-pulling control methods are not effective as small root fragments may regrow. It is a vigorous resprouter.
Perennial pea Lathyrus latifolius	Brought in for erosion control, it is sold in nurseries as ground covers and climbers, but often escapes cultivation.	Native to Europe. Found along roadsides, railroads, fencerows, and open fields.	It smothers native plants and is able to thrive in a variety of soil conditions.
Dalmatian toadflax Linaria dalmatica	Transported via garden waste.	Open fields.	Occurs in fields, pastures, roadsides, and rangelands. It is native to Europe and was introduced into North America in the late 1800s as an ornamental.
Asiatic honeysuckles Lonicera tatarica, L. morrowii, and L. x bella	Seeds dispersed by birds and mammals; human planting.	Open and shaded areas, forests, woodlands, edge habitats, and openings.	Suppression of forest regeneration, tree growth, and herbaceous layer. Increased nest predation. Poor food source for birds.

Plants in Category A			
Purple Loosestrife Lythrum salicaria	Seeds and soil transported by water flow, equipment, and wildlife.	Open wetlands, water body edges, and wet disturbed areas such as ditches.	Crowds or shades out native species.
Lesser celandine Ranunculus ficaria	Garden ornamental waste.	Grows in any light condition, from full sun to full shade. It prefers moist soils, but can also grow up steep hills where water and nutrients are scarce.	It is low-growing (no more than 11 inches tall) and spreads to form a thick mat of pretty yellow flowers.
Common Buckthorn Rhamnus cathartica L.	Seeds are dispersed by humans, through intentional human planting, and birds.	Upland, drier soils.	Changes the soil chemistry (nitrogen), and dominates the forest by excluding native species.
Glossy Buckthorn Rhamnus frangula (Frangula alnus)	Seeds are dispersed by humans, through intentional human planting, and birds.	Wetter areas than Common Buckthorn but they can occur together.	Changes the soil chemistry (nitrogen), and dominates the forest by excluding native species.
Erect Hedge Parsley or **Japanese Hedge Parsley** Torilis japonica	Bristle-covered seeds are easily dispersed by animals.	May grow in shaded or more open areas to include includes forests, grasslands, and disturbed areas such as roadsides.	Hedge Parsley invades forests, grassland, hedgerows, and roadsides.
Garden Valerian Valeriana officinalis (2008)	Transported by the wind or road machinery.	Grows in open and disturbed areas, in dry to moist conditions.	Displaces native vegetation in some situations.

Plants in Category B			
Species	**Vectors**	**Habitat**	**Effect**
Flowering rush Butomus umbellatus	Humans, for water gardens.	Shallow water, ditches, shores	Outcompetes native vegetation.
Siberian peashrub Caragana arborescens	A human–garden escapee, its seeds are transported by tires, equipment, or shoes.	Open areas; semi-shaded woods.	Displaces native shrubs.
Creeping bellflower Campanula rapunculoides	A human–garden escapee that spreads readily by seed and root systems.	shade, sun; deciduous woods, fields, along roads, disturbed areas.	It invades fields, stream banks, woodlots, prairies, oak savannas, and roadsides. It creates dense stands, spreading by seed and rhizome growth.
Canada Thistle Cirsium arvense	Seeds and soil are transported by tires, equipment, or short-distance wind dispersal.	Open and edge habitat, variety of soils.	Its clonal nature outcompetes native species and reduces species diversity.

Plants in Category B			
European Swamp Thistle Cirsium palustre	Transported by the wind, birds, humans, or machinery.	Open and semi-open moist areas; woods roads, edges of the forest.	Displaces native plants
Bull Thistle Cirsium vulgare	Transported by the wind or birds.	Prefers sunny, open areas and can tolerate a wide range of conditions, from most to dry soils.	Bull thistle may also dominate forest clear cuts and reduces the growth of tree seedlings.
Purple Crownvetch Coronilla varia	Human–planted for soil stabilization.	Open areas and road edges.	An aggressive vegetative spreader, it forms dense thickets.
Sweet William Dianthus barbatus	A human-garden escapee.	Semi-shade - forests, woodlands, riparian areas.	Dominates the forest floor.
Cutleaf Teasel Dipsacus laciniatus	Transported by humans or birds.	Open, disturbed soil, wet to dry.	It thins existing desirable plants, provides little cover, and decreases the value of infested areas.
Russian olive Elaeagnus angustifolia (2011)	Human-planted or spread by birds as seed.	Open areas and road edges.	Displaces native shrubs.
Autumn olive Elaeagnus umbellata	Human-planted or spread by birds as seed.	Open areas and road edges.	Displaces native shrubs.
Brittlestem Hemp-nettle Galeopsis tetrahit	Transported by tires, equipment, shoes, or animal fur.	Shady areas in forests, woodlands, and edges.	Dominates the forest floor.
White Bedstraw Galium mollugo	The plant produces numerous seeds spread by animals, wind, rain, and equipment. The “seed rain” occurs after each flowering period in July and August.	Open fields and roadsides. Tolerates a wide variety of soil types, from silt and sand to dense red clays.	It invades grasslands, open woodlands, meadows, pastures, riverbanks, and disturbed areas such as roadside ditches. It contains a toxin that causes toxicity in animals.
Dame’s Rocket Hesperis matronalis	Human–garden escapee.	Semi-shade, forests, woodlands, moist soils, and flood plains.	Displaces native vegetation, fairly aggressive.
Orange hawkweed Hieracium aurantiacum	Water, animals or clothing, and contaminated soil during vegetation transplantation in gardens transport seeds. Its seeds remain viable in the soil for up to seven years.	Open areas, dry, road edges.	Allelopathic, which may lead to loss of native plant diversity.

Plants in Category B			
Yellow hawkweed Hieracium caespitosum	Water, animals or clothing, and contaminated soil during vegetation transplantation in gardens transport seeds. Its seeds remain viable in the soil for up to seven years.	Open areas, dry, road edges.	Allelopathic, which may lead to loss of native plant diversity.
St. John's wort Hypericum perforatum	Roadwork machinery, vehicles, and shoes.	Open, and semi-open roadsides, forest edges, and wildlife openings.	Displaces native species, mildly poisonous to wildlife.
Yellow flag iris Iris pseudoacorus (2008)		Open areas and wetlands. Already found in Taylor, Marinette, Oconto, Douglas, and Washburn counties.	Displaces native wetland plants. Aggressive.
Field scabiosa Scabiosa arvensis	Garden-escapee. A single plant can produce up to 2,000 seeds.	Sun; average to dry disturbed soil; roadsides, fields, open woods, landscapes.	Invader of prairies and grasslands; threatening Wisconsin's most impaired vegetation community, the tallgrass prairies.
Butter and Eggs Linaria vulgaris	Roadside mowing. Known for aggressive vegetative reproduction A single plant produces up to 30,000 seeds.	Open areas, road edges.	Ability to crowd out native species. Toxic to livestock.
Creeping Jenny Lysimachia nummularia	Garden waste.	Part shade, shade; moist woods, wetlands, along streams, lawns, gardens.	A rampant spreader, it can become weedy and when it escapes into natural habitats, its shade tolerance and evergreen characteristics give it a great advantage over native woodland species, especially highly valued spring ephemerals.
White/Yellow sweet-clover Melilotus alba/officinalis	Escaped forage plant.	Open areas and road edges.	It invades roadsides, fields, and disturbed soil but also encroaches on high-grade habitats and can have explosive growth following fire disturbances.

Plants in Category B			
Forget-me-not Myosotis arvensis Myosotis scorpoides	Human–garden escapee.	Shaded, semi-shaded forests, woodlands, and edge.	Dominates the forest floor.
Eurasian water milfoil Myriophyllum spicatum	Boats and fishing equipment, humans, and downstream flow transport plant parts.	Heavily used fertile lakes, rivers, and other water bodies, highly disturbed lakebeds, and lakes receiving nitrogen, and phosphorus-laden runoff.	Shades out native aquatic plants, reducing biodiversity. Inhibits recreational uses, changes nutrient cycles, reduces water quality, and precipitates algae blooms.
Wild parsnip Pastinaca sativa	Tires, equipment, shoes, and animal fur transport seeds and soil.	Open sunny areas; road edges.	Phyto-photo is toxic to the skin. Displaces native species.
Reed canary grass Phalaris arundinacea	Equipment and human planting spread seeds & rhizomes.	Open wetlands, riparian areas, wet fens, marshlands, floodplains, wet prairies, and wet ditches.	Outcompetes native plants, alters soil hydrology, and promotes silt deposition, erosion, and constriction of waterways.
Common Reed-grass Phragmites australis	Rhizome spread; seed & rhizomes, and by equipment.	Open wet areas.	Outcompetes native plants, alters soil hydrology, and promotes silt deposition, erosion, and constriction of waterways.
Burnet saxifrage Pimpinella saxifraga	Human activity and vehicles, especially along roadsides, rapidly spread seeds.	Part shade, part sun; disturbed, often rocky soil in fields, and on roadsides.	Invades grasslands and woodlands; prefers dry, well-drained, calcareous soils (particularly chalk and limestone downs). It also grows well in rich soils and occasionally acidic sands.
Curly Pondweed Potamogeton crispus	Boating and fishing equipment, humans, and downstream flow.	Heavily used fertile lakes, rivers, and other water bodies, highly disturbed lakebeds, and lakes receiving nitrogen and phosphorus-laden runoff.	Shades out native aquatic plants, reducing biodiversity and habitat heterogeneity. Inhibits recreational uses, changes nutrient cycles, reduces water quality, and precipitates algae blooms.

Plants in Category B			
White Poplar Populus alba	Lateral root suckering can be extensive. Stem and root fragments can regenerate the plant.	Commonly found where soils are deep and moist: floodplains, lake shores, swamps, and abandoned farmland.	White poplar outcompetes many native tree and shrub species by forming large colonies in sunny areas such as forest edges and fields which interferes with the progress of forest succession.
Bristly locust Robinia hispida	Escape through cultivation, and can produce dense colonies through root suckering and difficult to manage without using to toxic chemicals. Seeds are viable in soil for one to ten years.	part shade, sun; disturbed soil; roadsides, woodlands, woodland edges, fence rows, and waste areas.	Invades numerous habitat types: upland forests, forest edges, prairies, forested dunes, grasslands, roadsides, and disturbed vacant areas. Nitrogen-fixing microbial symbionts alter soil chemistry.
Black locust Robinia pseudoacacia	Planted by humans, it spreads by root suckering and stump sprouting.	Open grasslands and forest edge habitat.	Shades out native species.
Common tansy Tanacetum vulgare	Humans, animals, and machinery transport.	Open areas, mostly disturbed sites such as roadsides.	Crowd out native open-land species.
Narrow-leaved cattail Typha angustifolia and hybrid cattail	Vegetative.	Open marshes and roadsides.	More aggressive than Typha latifolia, it takes over quality marshland or peatlands where hydrology is altered.

Plants in Category C: "WATCH" LIST			
Species	**Vectors**	**Habitat**	**Effect**
Siberian Peashrub Caragana arborescens	Siberian Peashrub is self-compatible making it easy for a planted Siberian peashrub to produce seed that can spread to areas where it was not planted.	Part shade, sun; roadsides, forest edges, open woods, and urban landscapes; planted as a windbreak.	Establishes itself in forests, woodland edges, savannas, and roadsides. Allelopathic. Inhibits the growth and establishment of some grasses. Produces a chemical that reduces herbivore predation and pathogen establishment.
Musk thistle Carduus nutans	The small seeds have feathery, white tufts for wind dispersal although most seeds land within 160 feet of the parent plant.	Musk thistle grows best in disturbed areas like prairies pastures, roadsides, and ditch banks, and in hayfields.	It colonizes primarily disturbed areas such as pastures, roadsides, and ditch banks.

Plants in Category C: "WATCH" LIST			
Oriental bittersweet Celastrus orbiculata	Seeds dispersed by birds and mammals, Human planting.	Shaded - Forests, woodlands, and edge.	Vines can limit the growth of herbaceous and woody species by shading them out.
Amur corktree Phellodendron amurense	Reproduces by both seeds and by resprouting from stumps. A female tree can produce thousands of seeds	Different soil types (clays /sands), acidic to alkaline; prefers moist, well-drained soils. Full sun and dense shade.	Suppresses regeneration of native tree species and displaces native shrub and herbaceous layers. Allelopathic; its chemical exudates alter soil microorganisms and the surrounding vegetation.