

2022 Invasive Species Categorization for the  
Catskill Regional Invasive Species Partnership

This categorization of Invasive Species in the Catskill Regional Invasive Species Partnership (CRISP) attempts to prioritize invasive species based on the ability of CRISP to perform prevention, early detection and control efforts for these invasive species based on the species invasiveness (according to NYS ranking evaluation) and distribution (according to iMapInvasives and expert knowledge).

The Invasive Species Tiers were developed between New York State iMapInvasive staff and the Partnership for Regional Invasive Species Management Coordinators. Each very high, or high, impact invasive species is assigned to the following tiers (See Invasive Species Tiers Table):

Tier 1 Early Detection/Prevention- Highest level of early detection survey efforts. Should conduct detection surveys and assign to appropriate Tier if detected.

1a) Inside Buffer (within 100 miles of PRISM), but not in PRISM

1b) Outside PRISM and Buffer, but close (Eastern North America)

1c) Far outside PRISM and Buffer (not in Eastern North America), but introduction pathway exists.

Tier 2 Eradication – Highest level of early detection response efforts. High impact species with low enough abundance and suitable treatment method available to make eradication feasible within the PRISM. Need delineation surveys to determine extent.

Tier 3 Containment – Target strategic management to slow the spread (e.g. remove outlying and border populations), as likely too widespread for eradication, but many surrounding regions could be at risk if left unattended. Use IPMDAT for plants. Possible eradication candidate only if adequate resources and effective control methods available.

Tier 4 Local Control – Eradication from PRISM not feasible; focus on localized management over time to contain, exclude, or suppress to protect high-priority resources like rare species or recreation assets. Be strategic when deciding if/where to control.

Tier 5 Monitor – Species that need more research, mapping, and monitoring to understand their invasiveness. This includes naturalized species and cultivated-only species that are known to be invasive in other regions but are not yet invasive here. Invasiveness may change with environmental or genetic changes. Should monitor populations on a regular basis to see if they are starting to become invasive and assign to appropriate Tier if invasive infestations detected.

The following table summarize the species according to NYS Rank. Species rank represents assessment of that species' invasiveness in NYS. VH = Very High, H = High, M = Moderate, L = Low, I = Insignificant, U = Unknown.

**Tier 1** Species are not known to occur within the PRISM boundary but represent a high potential for spread and establishment if introduced. Goals for these species are Early Detection/Prevention.

Scientific Name	Common Name	NYS Rank
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<b>Aquatic Animals</b>		
<i>Bythotrephes longimanus</i>	Spiny waterflea	H
<i>Cercopagis pengoi</i>	Fishhook waterflea	H
<i>Hemimysis anomala</i>	Bloody red shrimp	H
<i>Neogobius melanostomus</i>	Round goby	H
<i>Osmerus mordax</i>	Rainbow smelt	H
<i>Pylodictis olivaris</i>	Flathead catfish	H

<b>Terrestrial Animals</b>		
<i>Anoplophora glabripennis</i>	Asian-longhorned beetle	H
<i>Cygnus olor</i>	Mute swan	H
<i>Lilioceris lillii</i>	Lily leaf beetle	M
<i>Sus scrofa</i>	Feral swine; wild boar	VH

<b>Aquatic Plants</b>		
<i>Butomous umbellatus</i>	Flowering rush	H
<i>Egeria densa</i>	Brazilian waterweed	H
<i>Hydrilla verticillata</i>	Hydrilla	VH
<i>Ludwigia peploides</i> ssp. <i>glabrescens</i>	Floating primrose-willow	VH
<i>Myriophyllum aquaticum</i>	Parrot feather	VH
<i>Myriophyllum heterophyllum</i>	Broadleaf milfoil	VH
<i>Najas minor</i>	Brittle naiad	M

<b>Terrestrial Plants</b>		
<i>Ampelopsis brevipedunculata</i>	Porcelain berry; Amur peppervine	H
<i>Actinidia arguta</i>	Hardy kiwi	U-H?
<i>Actinidia polygama</i>	Silver vine	U-H?
<i>Arthraxon hispidus</i>	Small carpetgrass; Hairy joint grass	H
<i>Brachypodium sylvaticum ssp. sylvaticum</i>	Slender flasbrome	VH
<i>Corydalis incisa</i>	Incised fumewort	U-H?
<i>Cytisus scoparius</i>	Scotch broom	U-H?
<i>Phellodendron amurense</i>	Amur corktree; Amur cork	H
<i>Photinia villosa</i>	Oriental photinia; Oriental redtip	U-H?
<i>Pueraria montana var. lobata</i>	Kudzu; Japanese arrowroot	VH
<i>Salix atrocinerea</i>	Rusty willow	VH
<i>Salix cinerea</i>	European gray willow; Gray florist's willow	VH
<i>Salvia glutinosa</i>	Sticky sage	H
<i>Siliphium perfoliatum var. perfoliatum</i>	Cup-plant	H
<i>Viburnum dilatatum</i>	Linden arrowwood	M
<i>Viburnum plicatum</i>	Japanese snowball	U
<i>Ceratocystis fagacearum</i>	Oak wilt	
<i>Oplismenus hirtellus</i>	Wavy basketgrass	H

**Tier 2** Species are known to occur at currently low population within the PRISM boundary. All are potentially high impact and currently low abundance, with known control measures that make Eradication attainable as a Management Goal.

<b>Scientific Name</b>	<b>Common Name</b>	<b>NYS Rank</b>
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<b>Aquatic Animals</b>		
<i>Channa argus</i>	Northern snakehead	H
<i>Corbicula fluminea</i>	Asian clam	H
<i>Dreissena bugensis</i>	Quagga mussel	VH
<i>Viviparus georgianus</i>	Banded mysterysnail	H

<b>Terrestrial Animals</b>		
<i>Lycorma delicatula</i>	Spotted lanternfly	H

<b>Aquatic Plants</b>		
<i>Aldrovanda vesiculosa</i>	Waterwheel	U-H?
<i>Cabomba caroliniana</i>	Fanwort	H
<i>Eichhornia crassipes</i>	Water hyacinth	U-H?
<i>Hydrocharis morsusranae</i>	European frogbit; common frogbit	VH
<i>Nymphoides peltata</i>	Yellow floating heart	H
<i>Pistia stratiotes</i>	Water lettuce	VH

<b>Terrestrial Plants</b>		
<i>Acer pseudoplatanus</i>	Sycamore maple	H
<i>Akebia quinata</i>	Chocolate vine	M
<i>Aralia elata</i>	Japanese angelica tree	VH
<i>Clematis terniflora</i>	Japanese virgin's-bower	H
<i>Daphne mezereum</i>	Daphne	U
<i>Euonymus fortunei</i>	Winter creeper	H
<i>Heracleum mantegazzianum</i>	Giant hogweed	H
<i>Humulus japonicus</i>	Japanese hops	H
<i>Kolkwitzia amabilis</i>	Beautybush	H
<i>Lamium galeobdolon</i>	Yellow arch-angel	M
<i>Miscanthus sinensis</i>	Chinese silvergrass	H
<i>Paulownia tomentosa</i>	Princess tree; Empress Tree; Royal paulownia	M
<i>Perilla frutescens</i>	Beefsteak plant	H
<i>Persicaria perfoliata</i>	Mile-a-minute; Asiatic tearthumb	H
<i>Petasites hybridus</i>	Pestilence wort	M
<i>Pyrus calleryana</i>	Callery pear	H
<i>Rhodotypos scandens</i>	Black jetbead	M
<i>Syringa reticulata</i>	Japanese-tree lilac	M

<i>Vincetoxicum rossicum</i>	Pale swallowwort	VH
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**Tier 3** Species are species which are too high abundance within the PRISM boundary for Eradication to be likely. Management goal is Containment, unless particularly effective control methods or adequate funding sources become available. The IPMDAT tool should be used to assess individual populations for management.

Scientific Name	Common Name	NYS Rank
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Aquatic Animals		
<i>Bithynia tentaculata</i>	Mud bithynia	H
<i>Misgurnus anguillicaudatus</i>	Oriental weatherfish	H

Terrestrial Animals		
<i>Adelges piceae</i>	Balsam woolly adelgid	U-M?
<i>Amyntas agrestis</i>	Crazy snake worm; Alabama Jumper	H
<i>Sirex noctilio</i>	European woodwasp	H

Aquatic Plants		
<i>Iris pseudacorus</i>	Yellow iris	H
<i>Nitellopsis obtusa</i>	Starry stonewort	VH

Terrestrial Plants		
<i>Ailanthus altissima</i>	Tree-of-heaven	H
<i>Cardamine impatiens</i>	Narrowleaf bittercress	H
<i>Carlina vulgaris</i>	Carline thistle	U
<i>Carum carvi</i>	Common caraway	H
<i>Centaurea jacea</i>	Brown knapweed	M
<i>Convolvulus arvensis</i>	Field bindweed	M
<i>Cynanchum louiseae</i>	Black swallow-wort; Louise's swallow-wort, dog-strangling vine	VH
<i>Digitalis grandiflora</i>	Yellow foxglove	H
<i>Dipsacus fullonum</i>	Fullers teasel	H

<i>Dipsacus laciniatus</i>	Cutleaf teasel	H
<i>Euphorbia cyparissias</i>	Cypress spurge	H
<i>Euphorbia esula</i>	Leafy spurge	H
<i>Ficaria verna ssp verna</i>	Lesser celandine	H
<i>Frangula alnus</i>	Glossy buckthorn	H
<i>Impatiens glandulifera</i>	Policemen's helmet	M
<i>Ligustrum obtusifolium</i>	Border privet	H
<i>Lonicera maackii</i>	Amur honeysuckle	VH
<i>Lysimachia vulgaris</i>	Yellow garden loosestrife	H
<i>Pachysandra terminalis</i>	Japanese-spurge	H
<i>Pastinaca sativa</i>	Wild parsnip	M
<i>Rubus phoenicolasius</i>	Wineberry	VH
<i>Urtica dioica</i>	European stinging nettle	H

**Tier 4** Species are too high abundance for Eradication on a regional scale to be likely even with outside funding sources. Management Strategy for Tier 4 Species is long-term localized Suppression or Containment. Use the IPMDAT to assess individual populations for control.

Scientific Name	Common Name	NYS Rank
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Aquatic Animals		
<i>Carassius auratus</i>	Goldfish	VH
<i>Cipangopaludina chinensis</i>	Chinese mysterysnail	VH
<i>Cyprinus carpio</i>	Common carp	VH
<i>Dreissena polymorpha</i>	Zebra mussel	VH
<i>Faxonius rusticus</i>	Rusty crayfish	H
<i>Lepomis macrochirus</i>	Bluegill	NA
<i>Petromyzon marinus</i>	Sea lamprey	M

Terrestrial Animals		
<i>Adelges tsugae</i>	Hemlock woolly adelgid	H
<i>Agrilus planipennis</i>	Emerald ash borer	VH
<i>Drosophila suzukii</i>	Spotted Wing Drosophila	U-H?

<i>Halyomorpha halys</i>	Brown Marmorated Stink Bug	U-M?
<i>Lumbricus terrestris</i>	Green crawler	H
<i>Lymantria dispar</i>	Spongy moth	H

<b>Aquatic Plants</b>		
<i>Myriophyllum spicatum</i>	Eurasian water-milfoil	VH
<i>Potamogeton crispus</i>	Curly pondweed	H
<i>Trapa natans</i>	Water chestnut	VH

<b>Terrestrial Plants</b>		
<i>Acer platanoides</i>	Norway maple	VH
<i>Alliaria petiolata</i>	Garlic mustard	VH
<i>Anthriscus sylvestris</i>	Wild chervil	H
<i>Artemisia vulgaris var vulgaris</i>	Mugwort	H
<i>Berberis thunbergii</i>	Japanese barberry	VH
<i>Celastrus orbiculatus</i>	Oriental bittersweet	VH
<i>Centaurea stoebe</i> spp. <i>micranthos</i>	Spotted knapweed	H
<i>Cirsium arvense</i>	Canada thistle	H
<i>Cirsium palustre</i>	European marsh thistle	M
<i>Cirsium vulgare</i>	Bull thistle	M
<i>Elaeagnus umbellata</i>	Autumn olive	VH
<i>Euonymus alatus</i>	Burning bush	VH
<i>Glechoma hederacea</i>	Ground ivy; gill-over-the-ground	H
<i>Lonicera japonica</i>	Japanese honeysuckle	VH
<i>Lonicera morrowii</i>	Morrows honeysuckle	VH
<i>Lonicera tatarica</i>	Tatarian honeysuckle	VH
<i>Lonicera x bella</i>	Fly honeysuckle; Showy pink honeysuckle; Bell's honeysuckle	VH
<i>Lonicera xylosteum</i>	European fly-honeysuckle; dwarf honeysuckle	U-H ?
<i>Lonicera</i> spp (species unknown)	Honeysuckle	VH

<i>Lychnis flos cuculi</i>	Ragged robin	H
<i>Lythrum salicaria</i>	Purple loosestrife	VH
<i>Microstegium vimineum</i>	Japanese stiltgrass	VH
<i>Persicaria nepalensis</i>	Nepal smartweed	U
<i>Phalaris arundinacea</i>	Reed canarygrass	H
<i>Phragmites australis</i> ssp <i>australis</i>	Common reed grass	VH
<i>Reynoutria japonica</i> var <i>japonica</i> <i>Fallopia japonica</i> var <i>japonica</i>	Japanese knotweed	VH
<i>Reynoutria sachalinensis</i> <i>Fallopia sachalinensis</i>	Giant knotweed	U
<i>Reynoutria</i> spp	Knotweed (species unknown)	U
<i>Reynoutria x bohemica</i> <i>Fallopia x bohemica</i>	Bohemian knotweed	U
<i>Rhamnus cathartica</i>	Common buckthorn	VH
<i>Robinia pseudoacacia</i>	Black locust	VH
<i>Rosa multiflora</i>	Multiflora rose	VH
<i>Vincetoxicum nigrum</i>	Black swallowwort	VH

**Tier 5** Species are species that need more research, mapping, or monitoring to understand their invasiveness. This includes naturalized species and cultivated-only species that are known to be invasive in other regions but are not yet invasive here. Invasiveness may change with environmental or genetic changes. Should monitor populations on a regular basis to see if they are starting to become invasive and assign to appropriate Tier if invasive infestations detected.

Scientific Name	Common Name	NYS Rank
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Aquatic Animals		
<i>Didymosphenia geminata</i>	Didymo; rock snot	NA
<i>Eubosmina coregoni</i>	Water flea	U
<i>Faxonius virilis</i>	Virile crayfish	U
<i>Lepomis cyanellus</i>	Green sunfish	U
<i>Perca flavescens</i>	Yellow perch	NA
<i>Rhodeus sericeus</i>	Bitterling	NA
<i>Scardinius erythrophthalmus</i>	Rudd	U



<b>Terrestrial Animals</b>		
<i>Fiorina externa</i>	Elongate Hemlock Scale	U

<b>Aquatic Plant</b>		
<i>Marsilea quadrifolia</i>	European water fern; European waterclover	U

<b>Terrestrial Plants</b>		
<i>Allium vineale</i>	Wild garlic; field garlic	U-L?
<i>Alnus glutinosa</i>	European alder; Black alder	U-L?
<i>Artemisia absinthium</i>	Wormwood	U-L?
<i>Bromus inermis</i>	Smooth brome	U-L?
<i>Buddleja davidii</i>	Orange-eye butterfly bush	L
<i>Capsella bursa-pastoris</i>	Shepherd's purse	U-L?
<i>Cardamine hirsuta</i>	Hairy bitter-cress	U
<i>Catalpa speciosa</i>	Northern catalpa	U-L?
<i>Centaurea nigrescens</i>	Short-fringe starthistle; Knapweed; Tyrol knapweed	U
<i>Centaurea solstitialis</i>	Yellow star-thistle	U
<i>Commelina communis</i> var. <i>communis</i>	Asiatic dayflower	U-L?
<i>Crataegus monogyna</i>	English hawthorn; hawthorn	U
<i>Digitalis lanata</i>	Grecian foxglove	L
<i>Digitaria ischaemum</i>	Smooth crabgrass	U-L?
<i>Digitaria sanguinalis</i>	Hairy crabgrass	U
<i>Duchesnea indica</i>	Mock-strawberry	U-L?
<i>Eleutherococcus pentaphyllus</i>	Five-leaved aralia	U
<i>Elsholtzia ciliata</i>	Crested elsholtzia; crested late-summer mint	U-L?
<i>Galium odoratum</i>	Sweet bedstraw; Woodruff	L
<i>Geranium sibiricum</i>	Siberian crane's-bill	U-L?
<i>Hemerocallis fulva</i>	Orange daylily; Tawny daylily	L

<i>Hieracium piloselloides</i>	Kingdevil; Tall hawkweed	U-L?
<i>Hylotelephium spectabile</i>	Showy stonecrop	U-L?
<i>Ipomoea hederacea</i>	Morning glory; Ivy-leaved morning glory	U-L?
<i>Kolkwitzia amabilis</i>	Beautybush	U-L?
<i>Lathyrus odoratus</i>	Sweetpea	U-L?
<i>Lepidium campestre</i>	Field Pepper-grass	U-L?
<i>Lepidium densiflorum</i> var. <i>densiflorum</i>	Common pepperweed	U-L?
<i>Lotus tenuis</i>	Slender trefoil	U
<i>Lupinus polyphyllus</i> var. <i>polyphyllus</i>	Bigleaf lupine; Giant lupine	U-H?
<i>Malus baccata</i>	Siberian crabapple; crabapple	U
<i>Malus</i> spp. (Species unknown)	Crabapple	U
<i>Mycelis muralis</i>	Wall lettuce	U-M?
<i>Ornithogalum umbellatum</i>	Common star-of-bethlehem	U-L?
<i>Rosa canina</i>	Dog rose	U
<i>Salix fragilis</i>	Crack willow; Brittle willow	U
<i>Salix purpurea</i>	Basket willow; Purpleosier willow	U
<i>Salix x pendulina</i>	Wisconsin weeping willow	U
<i>Sedum sarmentosum</i>	Stringy stonecrop	U-L?
<i>Torilis japonica</i>	Erect hedge-parsley; Japanese hedge-parley	U-H?
<i>Typha x glauca</i>	Blue cat-tail; Hybrid cat-tail	U-H?