

## NC Native Plant Society – Invasive Exotic Plants in NC – 2010

*compiled by Misty Franklin Buchanan with review and input from biologists in the following agencies: NC Natural Heritage Program, NC Botanical Garden, University of North Carolina Herbarium, NC Exotic Pest Plant Council, NC DENR Aquatic Weed Control Program, US Fish & Wildlife Service, The Nature Conservancy, and the NC Zoo.*

The intent of the NC Native Plant Society Invasive Exotic Plant list is to rank exotic (alien, foreign, introduced, and non-indigenous) plants based on their invasive characteristics, to educate the public and resource managers, and to encourage early detection of invasive exotic species so that a rapid response can be implemented when needed. We hope this list will help eliminate the use of invasive exotic plants in landscaping and restoration projects. The 2004 Tennessee Exotic Pest Plant Council Invasive Exotic Plant list was used as a model for organization of this list, but species listed and ranks assigned here are applicable to North Carolina. The NC Native Plant Society Invasive Exotic Plant List is considered a work in progress, and will be evaluated and updated as new information is gathered about these and other species. Please send your comments to:

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**Background:** Many introduced plants have become naturalized in North Carolina and some are replacing our native plant species. Not all exotic species are considered harmful. Invasive plants are usually characterized by fast growth rates, high fruit production, rapid vegetative spread and efficient seed dispersal and germination. Not being native to NC, they lack the natural predators and diseases which would naturally control them in their native habitats. The rapid growth and reproduction of invasive plants allows them to overwhelm and displace existing vegetation and, in some cases, form dense one-species stands. Invasive species are especially problematic in areas that have been disturbed by human activities such as road building, residential development, forest clearing, logging, grazing, mining, ditching, mowing, erosion control, and fire control activities.

Invasive exotic plants disrupt the ecology of natural ecosystems, displace native plant and animal species, and degrade our biological resources. Aggressive invaders reduce the amount of light, water, nutrients and space available to native species. Some cause increased erosion along stream banks, shorelines and roadsides. Some exotics hybridize with related native plant species, resulting in changes to a population's genetic makeup; others have been found to harbor plant pathogens, which can affect both native and non-native plants, including ornamentals. Others contain toxins that may be lethal humans and other animals. Some invasive plants compete with and replace rare and endangered species and encroach upon their limited habitat. Other problems include disruption of native plant-pollinator relationships, tree and shrub mortality due to girdling, reduced establishment of native tree and shrub seedlings, reduction in the amount of space, water, sunlight and nutrients that would be available to native species, and altered fire regimes. Invasive plants also cause economic losses and expenditures each year for agriculture, forestry, and roadside management.

Our native fauna, including insects, birds, mammals, reptiles, fish and other animals, is dependent on native plants for food and shelter. While some animals can feed on a wide number of plant species, others are highly specialized and may be restricted to feeding on several or a single plant species. As exotic plants replace our native flora, fewer host plants are available to provide the necessary nutrition for our native wildlife. In some cases, invasive plants replace nutritious native plant foods with lower quality sources. Each exotic plant is one less native host plant for our native insects, vertebrates and other organisms that are dependent upon them.

It is important to document the spread of invasive exotic plants into natural areas. When invaders are found outside of landscape plantings, they should be recorded and voucher specimens should be collected for donation to a herbarium.

To reduce invasive plant invasions, we must approach the problem in a variety of ways: stop planting them, prevent accidental introductions, manage existing infestations, minimize disturbance to forests, wetlands, and other natural communities, and learn to work with (rather than against) natural systems and cycles.

**Rank 1 – Severe Threat:** Exotic plant species that have invasive characteristics and spread readily into native plant communities, displacing native vegetation.

**Scientific Name**

**Common Name**

Ailanthus altissima (Mill.) Swingle	Tree of Heaven
Albizia julibrissin Durz.	Mimosa
Alliaria petiolata (Bieb.) Cavara & Grande	Garlic-mustard
Alternanthera philoxeroides (Mart.) Griseb.	Alligatorweed
Celastrus orbiculatus Thunb.	Asian bittersweet
Elaeagnus angustifolia L.	Russian olive
Elaeagnus umbellata Thunb.	Autumn olive
Hedera helix L.	English ivy
Hydrilla verticillata (L.f.) Royle	Hydrilla
Lespedeza bicolor Turczaninow	Bicolor lespedeza
Lespedeza cuneata (Dum.-Cours.) G. Don	Sericea lespedeza
Ligustrum sinense Lour.	Chinese privet
Lonicera fragrantissima Lindl. & Paxton	Fragrant honeysuckle
Lonicera japonica Thunb.	Japanese honeysuckle
Microstegium vimineum (Trin.) A. Camus	Japanese stilt-grass
Murdannia keisak (Hassk.) Hand.-Mazz.	Asian spiderwort
Myriophyllum aquaticum (Vell.) Verdc.	Parrotfeather
Paulownia tomentosa (Thunb.) Sieb.& Zucc. ex Steud.	Princess tree
Persicaria perfoliata (Linnaeus) H. Gross (=Polygonum perfoliatum L.)	Mile-a-minute vine
Phragmites australis (Cav.) Trin. ssp. australis	Common reed
Pyrus calleryana Decne.	Bradford pear
Reynoutria japonica Houttuyn (Polygonum cuspidatum)	Japanese knotweed
Pueraria montana (Lour.) Merr.	Kudzu
Rosa multiflora Thunb.	Multiflora rose
Salvinia molesta Mitchell	Aquarium water-moss
Vitex rotundifolia L.f.	Beach vitex
Wisteria sinensis (Sims) DC	Chinese wisteria

**Rank 2 – Significant Threat:** Exotic plant species that display some invasive characteristics, but do not appear to present as great a threat to native communities in NC as the species listed in Rank 1.

**Scientific Name**

**Common Name**

Ampelopsis brevipedunculata (Maxim.) Trautv.	Porcelain-berry
Arthraxon hispidus (Thunb.) Makino	Hairy jointgrass
Bambusa spp.	Exotic bamboo
Berberis thunbergii DC	Japanese barberry
Broussonetia papyrifera (L.) L’Her. ex Vent.	Paper mulberry
Cardiospermum halicacabum L.	Balloonvine
Cayratia japonica (Thunb. ex Murray) Gagnep.	Bushkiller
Centaurea biebersteinii DC	Spotted knapweed
Clematis terniflora DC (=C. dioscoreifolia)	Leatherleaf clematis
Conium maculatum L.	Poison hemlock
Coronilla varia L.	Crown vetch
Dioscorea oppositifolia L.	Air-potato
Eichhornia crassipes (Mart.) Solms	Water-hyacinth
Euonymus alata (Thunb.) Sieb.	Burning bush
Euonymus fortunei (Turcz.) Hand. – Mazz.	Winter creeper
Ficaria verna ssp. ficariiformis (F.W. Schultz) B. Walln. (=Ranunculus ficaria)	Lesser Celandine
Glechoma hederacea L.	Gill-over-the-ground, ground ivy
Humulus japonicus Siebold & Zuccarini	Japanese Hops
Lamium purpureum L.	Henbit
Ligustrum japonicum Thunb.	Japanese privet
Ligustrum vulgare L.	Common privet
Lonicera maackii (Rupr.) Maxim.	Amur bush honeysuckle
Lonicera morrowii A. Gray	Morrow’s bush honeysuckle
Lonicera standishii Jaques	Standish’s Honeysuckle
Lonicera ×bella [morrowii × tatarica]	Hybrid Bush Honeysuckle
Lygodium japonicum (Thunb. ex Murr.) Sw.	Japanese climbing fern
Lythrum salicaria L.	Purple loosestrife
Mahonia beali (Fortune) Carriere	Leatherleaf Mahonia
Miscanthus sinensis Andersson	Chinese silver grass
Morus alba L.	White mulberry
Myriophyllum spicatum Komarov	Eurasian watermilfoil
Nandina domestica Thunb.	Nandina
Persicaria longiseta (de Bruijn) Moldenke (=Polygonum caespitosum Blume)	Oriental ladies-thumb
Persicaria maculosa S.F. Gray (=Polygonum persicaria L.)	Lady’s thumb
Phyllostachys spp.	Exotic bamboo
Poncirus trifoliata (L.) Raf.	Hardy-Orange
Pseudosasa japonica (Sieb. & Zucc. ex Steud.) Makino ex Nakai	Arrow bamboo
Rhodotypos scandens (Thunb.)	Makino jetbead
Rubus phoenicolasius Maxim.	Wineberry
Solanum viarum Dunal	Tropical soda apple
Sorghum halepense (L.) Pers.	Johnson grass
Spiraea japonica L.f.	Japanese spiraea
Stellaria media (L.) Vill.	Common chickweed
Veronica hederifolia L.	Ivyleaf speedwell
Vinca major L.	Bigleaf periwinkle

Vinca minor L.	Common periwinkle
Wisteria floribunda (Willd.) DC	Japanese Wisteria
Xanthium strumarium L.	Common cocklebur
Youngia japonica (L.) DC.	Oriental false hawksbeard

**Rank 3 – Lesser Threat:** Exotic plant species that spread into or around disturbed areas, and are presently considered a low threat to native plant communities in NC.

<u>Scientific Name</u>	<u>Common Name</u>
Ajuga reptans L.	Bugleweed
Allium vineale L.	Field garlic
Artemisia vulgaris L.	Mugwort, common wormwood
Arundo donax L.	Giant reed
Baccharis halimifolia L.*	Silverling, groundsel tree
Bromus catharticus Vahl	Bromegrass, rescue grass
Bromus commutatus Schrad.	Meadow brome
Bromus japonicus Thunb. ex Murray	Japanese bromegrass
Bromus secalinus L.	Rye brome
Bromus tectorum L.	Thatch bromegrass, cheat grass
Buddleia davidii Franch.	Butterfly bush
Chicorium intybus L.	Chicory
Chrysanthemum leucanthemum L.	Ox-eye daisy
Cirsium vulgare (Savi) Ten.	Bull thistle
Daucus carota L.	Wild carrot, Queen Anne's-lace
Dipsacus fullonum L.	Fuller's teasel
Egeria densa Planch.	Brazilian elodea, Brazilian water-weed
Fatoua villosa (Thunb.) Nakai	Hairy crabweed
Festuca pratensis Huds.	Meadow fescue
Ipomoea quamoclit L.	Cypressvine morningglory
Kummerowia stipulacea (Maxim.)	Makino Korean clover
Kummerowia striata (Thunb.) Schindl.	Japanese clover
Liriope muscari (Dcne.) Bailey	Liriope, Lilyturf
Lysimachia nummularia L.	Moneywort, creeping Jenny
Melilotus albus Medik.	White sweet clover
Melilotus officinalis (L.) Lam.	Yellow sweet clover
Najas minor All.	Brittle naiad
Pastinaca sativa L.	Wild parsnip
Perilla frutescens (L.) Britt.	Beefsteakplant
Populus alba L.	White poplar
Senecio vulgaris L.	Ragwort
Setaria faberi R.A.W. Herrm.	Nodding foxtail-grass
Triadica sebifera (L.) Small	Chinese tallowtree
Tussilago farfara L.	Coltsfoot
Vicia sativa L.	Garden vetch

\**Baccharis halimifolia* is native to marshes and marsh borders on the outer Coastal Plain in NC, but has spread along road corridors to invade disturbed areas in the Piedmont, which is not considered its native habitat.

**Watch List A:** Exotic plants that naturalize and may become a problem in the future; includes species that are or could become widespread in North Carolina. At this time, more information is needed.

**Scientific Name**

Arum italicum P. Mill.  
 Buglossoides arvensis (L.) I.M. Johnston (L.) I.M.  
 Bupleurum rotundifolium L.  
 Centaurea cyanus L.  
 Cyperus entrerianus Böckler  
 Echium vulgare L.  
 Elaeagnus pungens Thunb.  
 Hibiscus syriacus L.  
 Hypericum perforatum L.  
 Ornithogalum umbellatum L.  
 Solanum dulcamara L.  
 Verbascum thapsus L.

**Common Name**

Italian lords and ladies  
 Corn gromwell  
 Hound's-ear, hare's-ear  
 Cornflower  
 Deeprooted sedge  
 Viper's bugloss  
 Thorny olive  
 Rose of Sharon  
 St. John's-wort  
 Star of Bethlehem  
 Climbing nightshade  
 Common mullein

**Watch List B:** Exotic plant species that cause problems in adjacent states but have not yet been reported to cause problems in NC.

**Scientific Name**

Acer platanoides L.  
 Akebia quinata (Houtt.) Dcne.  
 Bromus inermis Leyss.  
 Carduus nutans L.  
 Carex kobomugi Ohwi  
 Cirsium arvense (L.) Scop.  
 Commelina benghalensis L.  
 Elaeagnus pungens Thunb.  
 Hesperis matronalis L.  
 Imperata cylindrica (Linnaeus) Palisot de Beauvois  
 Iris pseudoacorus L.  
 Lonicera tatarica L.  
 Ludwigia grandiflora ssp. grandiflora (Michx) Greuter & Burdet  
 Melia azedarach L.  
 Nymphoides cristata (Roxburgh) Kuntze  
 Pistia stratiotes L.  
 Potamogeton crispus L.  
 Quercus acutissima Carruthers  
 Rhamnus cathartica L.  
 Setaria italica (L.) P. Beauv.  
 Setaria verticillata (L.) Beauv.  
 Setaria viridis (L.) P. Beauv.  
 Stachys floridana Shuttlw. ex Benth.  
 Torilis arvensis (Huds.) Link  
 Tragopogon dubius Scop.  
 Trapa natans L.  
 Tribulus terrestris L.  
 Xanthium spinosum L.

**Common Name**

Norway maple  
 Fiveleaf akebia  
 Smooth bromegrass  
 Musk thistle  
 Japanese sedge  
 Canada thistle  
 Bengal dayflower  
 Thorny-olive  
 Dame's rocket  
 Cogongrass  
 Pale-yellow iris  
 Tartarian honeysuckle  
 Creeping waterprimrose  
 Chinaberry  
 Crested floating heart  
 Water-lettuce  
 Curly pondweed  
 Sawtooth oak  
 European buckthorn  
 Foxtail-millet  
 Bur-foxtail  
 Green millet  
 Florida Hedge nettle  
 Spreading hedge-parsley  
 Yellow goat's-beard  
 Water-chestnut  
 Puncturevine  
 Spiny cocklebur