#### PENNSYLVANIA INVASIVE PLANT SPECIES

Invasive plants are plants which grow quickly and aggressively, spreading and displacing other plants. Invasive plants are usually introduced by people either accidentally or on purpose, into a region far from their native habitat. Invasive plants are often referred to as "exotic", "alien", "introduced" or "non-native" species. In their natural range, these species are limited by environmental, pest or disease conditions, keeping these species in balance within their ecosystem. When introduced into an area where these limitations are absent, some species have the ability to become invasive. These are the species we are concerned about in conservation.

## Trees:

- Amur maple, Acer ginnala, is a small ornamental tree that spreads by numerous winged seeds.
- <u>Bee-bee tree</u>, *Tetradium daniellii*, is an uncommon landscape tree that is slowly spreading in south-central and southeastern PA.
- Callery pear, Pyrus calleryana, has established populations in fields and hedgerows in southeastern PA.
- <u>Corktrees</u>, *Phellodendron amurense*, *P. japonicum*, *P. lavallei*, these Asian trees are problematic in urban and natural areas in southeastern PA.
- <u>European black alder</u>, Alnus glutinosa, is often found along streams and other wet areas.
- <u>Japanese angelica tree</u>, *Aralia elata*, has sharp spines on the trunk and resembles our native devil's waking stick.
- Mimosa, Albizia julibrissin, has escaped cultivation to invade roadsides and woodland edges in eastern PA.
- Norway maple, Acer platanoides, a common street and lawn tree that frequently escapes cultivation.
- Paper mulberry, Broussonetia papyfera, is a common, small ornamental tree from Asia.
- <u>Princess-tree, Empress-tree</u>, *Paulownia tomentosa*, imported from China this purple-flowered tree has spread across southern PA by winged seeds.
- <u>Siberian elm</u>, *Ulmus pumila*, a fast growing tree reaching 50-70 feet high.
- Sycamore maple, Acer pseudoplatanus, a tall Eurasian tree invading urban and suburban woods in southern PA.
- <u>Tree-of-heaven</u>, *Ailanthus altissima*, grows throughout PA. Another immigrant from China introduced as an ornamental.
- White mulberry, Morus alba, is a fast-growing species that will hybridize with our native red mulberry, Morus rubra.

#### Shrubs:

- <u>Butterfly bush</u>, *Buddleja davidii*, has numerous cone-shaped bunches of purple flowers that attract butterflies.
- <u>Chinese and Shrubby bushclovers</u>, *Lespedeza cuneata* and *L. bicolor*, are semi-woody shrubs that readily invade open and disturbed habitats.
- <u>Common buckthorn</u> and <u>Glossy buckthorn</u>, *Rhamnus cathartica* and *R. frangula* (syn. *Frangula alnus*). Small trees or shrubs to 20' high with yellow sapwood and pink to orange heartwood.
- <u>Doublefile viburnum</u>, *Viburnum plicatum*, <u>Linden viburnum</u>, *V. dilataum*, and <u>Siebold viburnum</u>, *V. sieboldii*, are Asian shrubs with abundant fruits that are spread by birds.
- <u>European and Japanese barberries</u>, *Berberis vulgaris* and *B. thunbergii*, form dense thickets in woodlands, wetlands and meadows.
- <u>Guelder rose</u>, *Viburnum opulus*, a tall shrub with maple-like leaves imported from Eurasia and escaped to woods fields and roadsides.
- <u>Japanese spiraea</u>, *Spiraea japonica*, was imported from Japan for its pink flowers. It escapes from cultivation to forest openings and meadows.
- <u>Jetbead</u>, *Rhodotypos scandens*, is a deciduous shrub with clusters of small black fruits and white four-petaled flowers.

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- <u>Multiflora rose</u>, Rosa multiflora, this import from Asia has become a noxious weed in PA field, pastures and woodlands.
- Privets, Ligustrum species imported from Europe and Asia are aggressive, thicket forming shrubs.
- Russian olive & Autumn olive, Elaeagnus angustifolia and E. umbellata, imported from Asia, have become serious weeds in southern PA pastures and other open ground.
- Shrub honeysuckles, five Lonicera species that rapidly invade and dominate field edges and pastures.
- <u>Wineberry</u>, *Rubus phoenicolasius*, imported from Asia for its raspberry-like fruit and now common on roadsides and in woods and thickets.
- Winged euonymus or Burning-bush, Euonymus alatus, a shrub from China and Japan imported for its bright purple-red fall color and frequently found along streams and in woods mostly in southern PA.

### Vines:

- <u>Black and Pale swallow-wort</u>, Vincetoxicum nigrum and V. rossicum, are twining vines that can dominate old fields and poison livestock.
- <u>Chinese and Japanese wisteria</u>, *Wisteria sinensis* and *W. floribunda*, are long-lived woody vines with bright purple flowers that can out-compete and smother native vegetation.
- <u>Common and Bigleaf periwinkle</u>, *Vinca minor* and *V. major*, are evergreen, ornamental groundcovers that can form thick mats, even under dense tree canopy.
- English ivy, Hedera helix, is a common evergreen climbing vine in the landscape that can smother native vegetation.
- <u>Five-leaf akebia</u>, *Akebia quinata*, a woody twining vine from Asia that has escaped cultivation to disturbed woods in southeastern PA.
- <u>Japanese honeysuckle</u>, *Lonicera japonica*, a common ornamental vine from Asia now an abundant weed in roadside thickets, woods and fields across southern PA.
- <u>Japanese hops, Humulus japonicus</u>, is a prickly vine that invades moist, sunny areas.
- <u>Kudzu</u>, *Pueraria lobata*, a vigorous half-woody vine introduced from Asia for ornament, forage and erosion control and now an uncommon but officially noxious weed in southeastern PA.
- <u>Mile-a-minute weed</u>, *Persicaria perfoliata*, a slender annual vine with reflexed prickles was accidentally introduced from Asia with nursery stock and now a noxious weed in PA.
- <u>Oriental bittersweet</u>, *Celastrus orbiculatus*, a twining woody vine imported from Asia and rapidly replacing the native bittersweet in woods and fencerows.
- <u>Porcelain-berry</u>, *Ampelopsis brevipedunculata*, a deciduous, woody, perennial vine in the grape family imported from Asia.
- <u>Wintercreeper</u>, *Euonymus fortunei*, is an evergreen woody vine that aggressively invades forest edges and openings.

## **Grasses:**

- <u>Cheatgrass and Poverty brome</u>, Bromus tectorum and B. sterilis, accidentally introduced from Europe in ballast soil or impure wheat seed shipments. A serious agricultural weed in the Midwest and western states.
- <u>Chinese silvergrass</u>, *Miscanthus sinensis*, is a tall bunched grass that spreads through vigorous roots and rhizomes.
- <u>Common reed</u>, *Phragmites australis*, a very large perennial grass, forms extensive colonies in wetlands. The scattered native American populations are being replaced by the vigorous European subspecies.
- Common velvet grass, Holcus lanatus, introduced as early as the 17th Century in imported pasture seed.
- <u>Golden bamboo</u>, *Phyllostachys aurea*, is a very tall grass with round, hollow stems that spreads rapidly via its underground rhizomes.
- <u>Japanese stiltgrass</u>, *Microstegium vimineum*, introduced from tropical Asia in packing material and spreading through moist areas open woods and clearings across southeastern PA and probably elsewhere.
- <u>Johnsongrass</u>, *Sorghum halepense*, is native to the Mediterranean region. It is designated as a noxious weed in Pennsylvania.

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- Ravenna grass, Saccharum ravennae, is also known as hardy pampas grass. It grows up to ten feet tall and quickly colonizes wet habitats.
- Reed canary grass, *Phalaris arundinacea*, forms dense monocultures in wet habitats that disrupt waterways and degrade habitat for native wildlife.
- Rough bluegrass, Poa trivialis, is a non-descript grass that out-competes native grasses.
- <u>Shattercane</u>, *Sorghum bicolor* was imported from Africa as a forage crop but is now a noxious weed in Pennsylvania.
- <u>Small carpetgrass</u>, *Anthraxon hispidus*, is native to Asia. It is currently found in a few counties in southern PA, usually alongside invasive stiltgrass.
- <u>Tall fescue</u>, *Schedonorus arundinaceus*, is a very common cool season perennial grass that adapts to a variety of conditions and crowds out native vegetation.
- <u>Wavyleaf basketgrass</u>, *Oplismenus hirtellus*, is a fast-growing, creeping grass not yet in PA but found across the border in Maryland.

### Herbs:

- <u>Beefsteak plant</u>, *Perilla frutescens*, a member of the mint family introduced from India now occasionally found in moist shaded roadsides and woods.
- <u>Black, Brown and Spotted knapweeds</u>, *Centaurea nigra, C. jacea, C. stoebe micranthos*, have pink to purple flowers that resemble small pineapples.
- <u>Bristled knotweed</u>, Persicaria longiseta, is an annual plant from Asia that can dominate wet, disturbed habitats.
- <u>Bull thistle</u>, Cirsium vulgare, is a large-flowered thistle with long spines and abundant seeds.
- <u>Canada thistle</u>, *Cirsium arvense*, imported from Eurasia (not Canada) now common and noxious weed in fields pastures and roadsides throughout PA.
- <u>Crown-vetch</u>, *Coronilla varia*, a sprawling perennial native to southern Europe planted extensively along highways. It spreads into open, grassland and prairie habitats.
- <u>Dame's-rocket</u>, Hesperis matronalis, introduced from Europe to American gardens, now common in low woods floodplains and roadside ditches throughout PA.
- <u>Garlic-mustard</u>, *Alliaria petiolata*, a weed of shady moist spots in suburban gardens, woods and floodplains throughout PA; introduced from Europe.
- <u>Giant hogweed</u>, *Heracleum mantegazzianum*, 15 feet tall member of the carrot family introduced from Eurasia. Its sap can cause blisters so it is listed as a federal and PA noxious weed.
- Goats rue, Galega officinalis, is a state and federal noxious weed that is very poisonous to livestock.
- <u>Goutweed</u>, *Aegopodium podagraria*, imported from Eurasia and frequently found in fields, thickets, woods and roadsides throughout PA.
- Greater celandine, Chelidonium majus, is a four-petaled yellow flower from Europe that is poisonous.
- <u>Japanese and Giant knotweed</u>, *Fallopia japonica* and *F. sachalinensis*, are extremely difficult weeds to control. Imported from Japan they dominate stream and river banks throughout PA.
- <u>Japanese pachysandra</u>, *Pachysandra terminalis*, is an evergreen perennial groundcover that can spread from cultivation into natural areas if left uncontrolled.
- <u>Jimsonweed</u>, *Datura stramonium*, is a state noxious weed that is highly toxic and frequently found in cultivated fields and other disturbed sites.
- Lesser celandine, Ranunculus ficaria, an aggressive weed in wetlands imported from Eurasia
- Moneywort, Lysimachia nummularia, goes by many common names and was introduced into the U.S. from Europe as an ornamental groundcover.
- <u>Musk thistle</u>, Carduus nutans, is also known as nodding thistle from the way the flowers droop once mature.
- Narrowleaf bittercress, Cardamine impatiens, is a member of the mustard family native to Europe.
- Orange day-lily, Hemorocallis fulva, is a very hard perennial that grows in abundance along roadsides and old home sites.
- <u>Poison hemlock</u>, *Conium maculatum*, was brought to U.S. gardens from Europe in the 1800s it now invades native plant communities in riparian woodlands, open floodplains and stream banks.

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- <u>Purple loosestrife</u>, *Lythrum salicaria*, a European perennial with a woody base that has escaped gardens and destroyed large areas of waterfowl habitat by dominating wetlands and excluding all other plant life.
- <u>Smallflower and hairy willow herb</u>, *Epilobium parviflorum* and *E. hirsutum* are ornamental perennials with showy, rose-colored flowers that can quickly form dense stands.
- <u>Star-of-Bethlehem</u>, Ornithogalum nutans and O. umbellatum, garden bulbs from Europe that escape to infest lawns and roadsides.
- <u>Wild chervil</u>, *Anthriscus sylvestris*, is a member of the carrot family that competes with native plants and carries a virus that can infect some vegetable crops.
- <u>Wild parsnip</u>, *Pastinaca sativa*, a European import now a widespread and abundant weed of roadsides throughout PA.
- Yellow flag iris, Iris pseudacorus, is a showy ornamental plant commonly found in wetlands, along pond edges, and other wet areas where it can dominate.

# **Aquatic Plants**

- <u>Brazilian water-weed</u>, *Egeria densa*, is a popular aquarium plant that can grow vigorously and choke out native vegetation once it reaches ponds, lakes and other waterbodies.
- <u>Carolina fanwort</u>, *Cabomba caroliniana*, is a submerged, rooted plant native to the southeastern U.S. and sold for aquariums.
- <u>Curly pondweed</u>, *Potamogeton crispus*, an aggressive European weed common in lakes, ponds and streams.
- <u>Didymo</u>, *Didymoshenia geminate*, is a microscopic alga called a diatom. It can form dense mats that smother stream beds and native vegetation.
- <u>Eurasian Water-milfoil</u>, *Myriophyllum spicatum*, a common an abundant Eurasian invader of lakes and rivers throughout PA.
- <u>Floating Primrose-willow</u>, <u>Ludwigia peploides</u> ssp. <u>glabrescens</u> is indigenous to slow-moving waters of the southeastern U.S. now found in across southern PA.
- Hybrid cattail, Typha x glauca, a cross between narrow-leaved cattail and native common cattail
- <u>Hydrilla</u>, *Hydrilla verticillata*, is a submerged aquatic plant that resembles several other aquatic plants, making ID difficult.
- Narrow-leaved cattail, *Typha angustifolia*, is from Europe and difficult to visually distinguish from our native cattail.
- <u>Parrot feather watermilfoil</u>, *Myriophyllum aquaticum*, is an aquarium plant native to South America that can form dense mats in PA lakes and ponds.
- Water-chestnut, *Trapa natans*, a locally abundant Eurasian invader of ponds and lakes.

Source: Pennsylvania Department of Conservation and Natural Resource, List of Invasive Plant Species; <a href="http://www.dcnr.state.pa.us/forestry/plants/invasiveplants/index.htm">http://www.dcnr.state.pa.us/forestry/plants/invasiveplants/index.htm</a>