

Forests Out of Balance:
The Impact of Invasive Plant Species

Invasive Exotic Plants
in
our Forests
Current and Future

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Invasive plants devastate and diminish the productivity and enjoyment of natural resources...

Forests



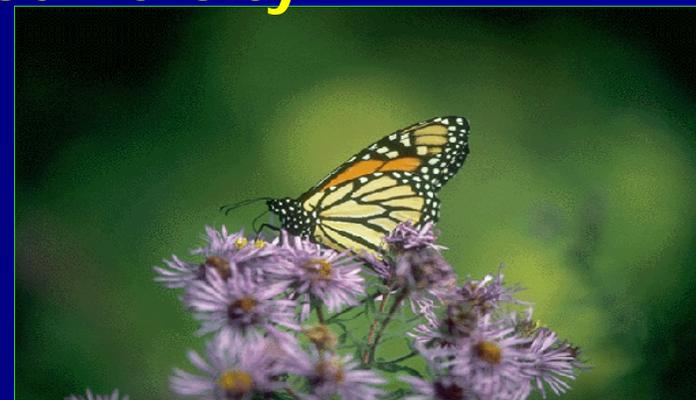
Watersheds



Natural Areas



Biodiversity



Top 20 invasive plant species

in the northeastern area...



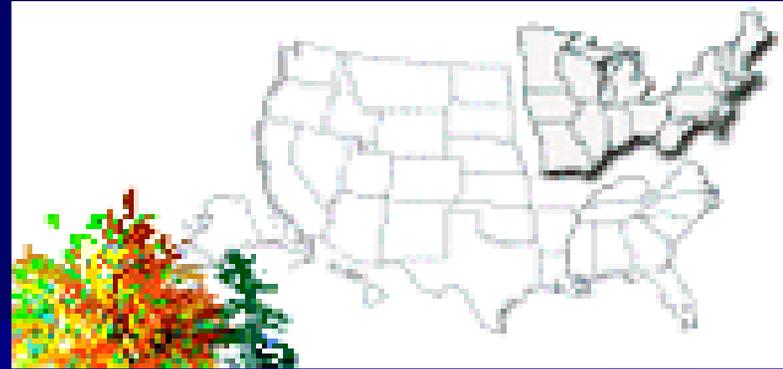
Northeastern invasive plant species

1. *Acer platanoides* – Norway maple
2. *Ailanthus altissima* – Tree of heaven
3. *Alliaria petiolata* – Garlic mustard
4. *Berberis Thunbergii* – Japanese barberry
5. *Celastrus orbiculatus* – Oriental bittersweet
6. *Fallopia japonica* – Japanese knotweed
7. *Lonicera japonica* – Japanese honeysuckle
8. *Lonicera maackii* – Amur honeysuckle
9. *Microstegium vimineum* – Japanese stiltgrass
10. *Pueria montana* – Kudzu

Northeastern invasive plant species

11. *Rosa multiflora* – Multiflora rose
12. *Elaeagnus umbellata* –
Autumn olive and Russian olive
13. *Rhamnus cathartica* – Buckthorn
14. *Polygonum perfoliatum* – Mile-a-minute weed
15. *Heracleum mantegazzianum* – Giant hogweed
16. *Ampelopsis brevipedunculata* –
Porcelain berry
17. *Euonymus alatus* – Winged euonymus
18. *Ligustrum obtusifolium*- Border privet
19. *Dipsacus sylvestris* – Common teasel
20. *Hesperis matronalis* – Dame's rocket

Survey of 20 NE states



- In 2005
- 20 Northeastern State Survey
- Included: Department of Natural Resources, state botanists, foresters, biologists, invasive species coordinators, etc.
- Supplied top 3 invasive plant threats
- Analysis of this information revealed top 5 invasive plants
- ----->

Garlic mustard

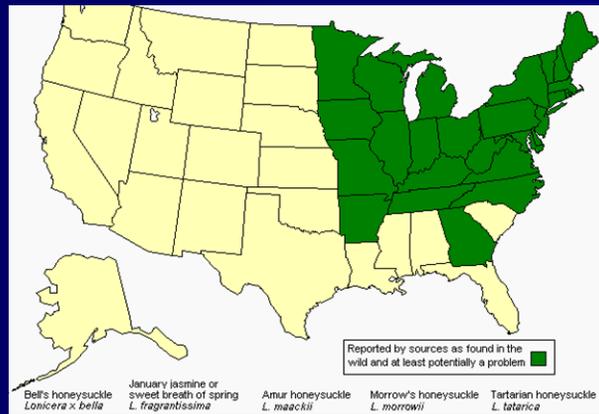
Alliaria petiolata



Garlic mustard poses a severe threat to native plants and animals in forest communities in much of the eastern and mid-western U.S.

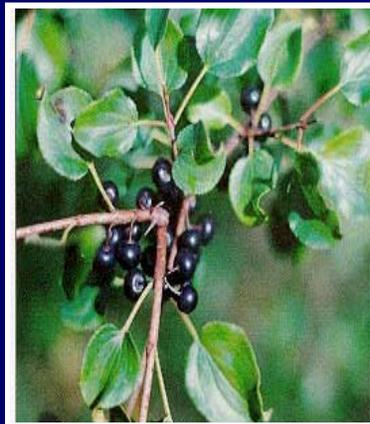
Honeysuckle

- Amur honeysuckle
Lonicera maackii Illinois
- Bush honeysuckle
Lonicera supp. Indiana, Ohio
- Japanese honeysuckle
Lonicera japonica Missouri
- Honeysuckle *Lonicera*
New Hampshire

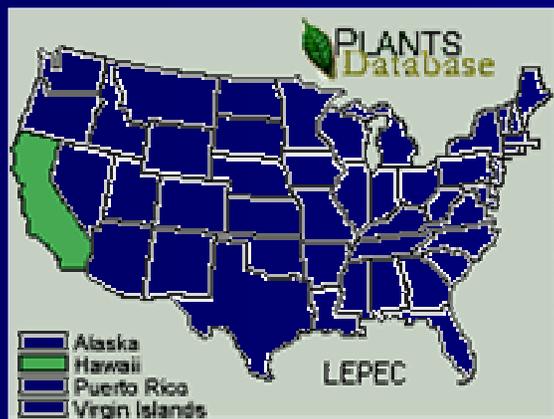


Exotic bush honeysuckles can rapidly invade and overtake a site, forming a dense shrub layer that crowds and shades out native plant species.

Buckthorn



- Buckthorn *Fragula P. Mill*
Michigan, Iowa, Wisconsin
- Buckthorn *Rhamnus carthartica*
Minnesota
- Glossy Buckthorn *Rhamnus fragula R. carthartica*
Ohio, Massachusetts
- Buckthorn *Rhamnus fragula L*
Vermont



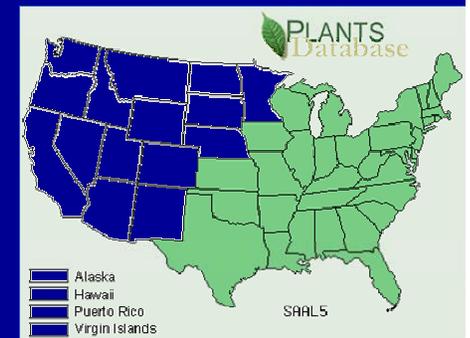
Exotic buckthorns tend to form dense, even-aged thickets, crowding and shading out native shrubs and herbs, often completely eradicating them. Dense buckthorn seedlings prevent native tree and shrub regeneration

Purple loosestrife

Lythrum salicaria L.



- The highly invasive nature of purple loosestrife allows it to form dense, homogeneous stands that restrict native wetland plant species, including some federally endangered orchids, and reduce habitat for waterfowl.



Japanese barberry

Berberis thunbergii DC.



Japanese barberry can be found invading oak woodlands and oak savannas. It is found along woodland's edge, roadsides, fences, old fields, and open woods.

Morgantown field office states

DELAWARE



1. Johnson grass
2. Canada thistle
3. Bur cucumber

OHIO



1. Bush honeysuckle
2. Garlic mustard
3. Glossy buckthorn

MARYLAND



1. Tree-of-Heaven
2. Japanese stiltgrass
3. Mile-a-Minute

PENNSYLVANIA



1. Kudzu
2. Giant hog weed
3. Goats-rue

NEW JERSEY



1. Japanese stilt grass
2. Japanese barberry
3. Garlic mustard

WEST VIRGINIA



1. Multiflora rose
2. Tree of heaven
3. Kudzu

Future invasive plant species

to watch out for.....

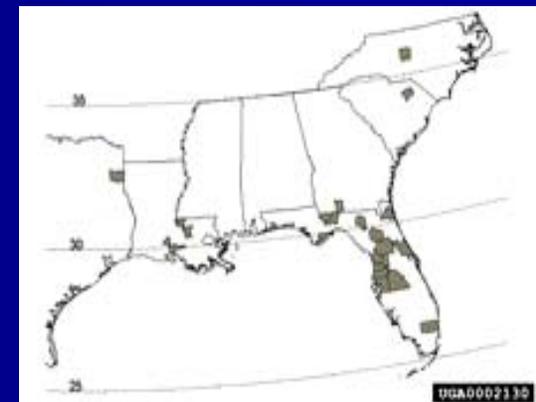




Skunk vine

Paederia foetida L.

- woody perennial climbing vine
- potential to invade a large variety of disturbed and natural habitats
- infestations can cover to restrict light, strangle, and kill ground cover, shrubs and trees
- located in the southeastern United States with potential to spread to northeastern states

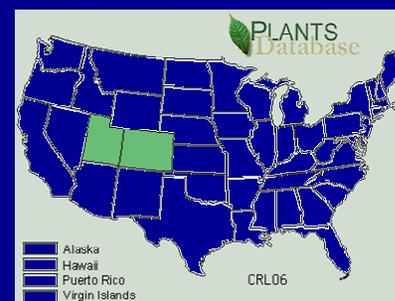


Arrow Bamboo

Pseudosasa japonica

(Sieb. & Zucc. ex Steud.) Makino ex Nakai

- Common Names: Arrow bamboo, hardy bamboo, slash bamboo, and metake
- evergreen perennial shrub or subshrub
- spreads quickly and reproduce with underground rhizomes
- aggressively invade parklands or woodlands adjacent to planted groves



Bradford Pear

Pyrus calleryana



- rapidly growing deciduous tree from China
- 30 to 50 feet tall and 20 to 30 feet wide
- planted as an ornamental for its showy white flowers in the spring and red to orange leaves in fall
- aggressively invades natural and disturbed open areas, displaces native plant communities and disrupts natural succession



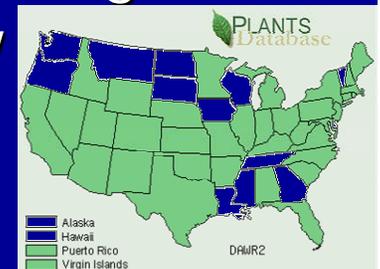


English Ivy

Hedera helix L.

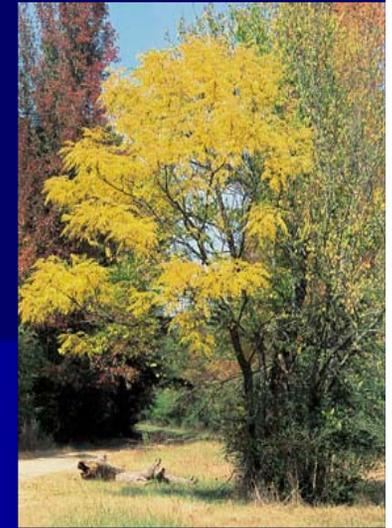


- evergreen climbing vine
- attaches to bark of trees, brickwork, and other surfaces by way of numerous, small root like structures
- vines surround tree host, blocking sunlight and causing death
- aggressive invader that threatens all vegetation levels of forested and open areas, growing along the ground as well as into the forest canopy

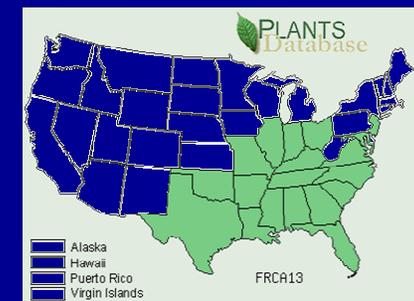


Chinaberry Tree

Melia azedarach L.



- Deciduous tree growing to a height of 50 feet and diameter of 2 feet
- forms colonies from root sprouts or sprouts from root collars, and spreads by abundant seeds that are dispersed by birds
- Dense thickets overtake native habitats, disturbing biodiversity





Cogongrass

Imperata cylindrica (L.) Palisot



- a perennial, rhizomatous grass that grows approximately 4 feet in height
- tolerant of shade, high salinity, moisture and drought
- grows in coastland, disturbed areas, natural forest, planted forests, range/grasslands, riparian zones, scrub/shrub lands, urban areas, and wetlands.
- reported in Virginia, West Virginia and Maryland, and is on the noxious weed lists for Minnesota and Vermont.

one of the 10
worst weeds
worldwide

Be Proactive!

■ Land management

- Plant natives species
- Include invasive plant management in Forest Plans
- Become educated on invasive plant species in your area
- Conduct annual surveys to detect new species
- Eliminate new weeds before spreading
- Use noxious weed free mulch and forage
- **"Weed of the Week"**
 - _ Fact sheets on invasive plants provide weekly awareness
 - _ http://na.fs.fed.us/fhp/invasive_plants/
- **Partnerships**
 - Develop Local/State/Regional invasive partnerships
 - Cooperative Weed Management Areas (CWMA) are local organizations that integrate all noxious weed (and invasive plant) management resources across jurisdictional boundaries in order to benefit entire communities.
 - www.idahoag.us/Categories/PlantsInsects/NoxiousWeeds/Documents/cwma/cookbook.pdf

THE END

