



Forest Focus

*The Bureau of Forestry
Newsletter
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Invasive Plant Awareness

Invasive plants can significantly alter our native ecosystems, negatively impacting biodiversity. Left unchecked, they can blanket entire areas in monocultural deserts. Worse, invasive plants can alter soil chemistry and local ecology, setting the stage for other invasive species to follow.

Although they appear green, invasive plants are hardly benign. In fact, the World Economic Forum ranks invasive species (at 13 percent) as equal to pollution (seven percent) plus climate change (six percent) in terms of causing biodiversity loss. The National Wildlife Federation blames invasive species for jeopardizing 42 percent of threatened and endangered species, worldwide.

State Forester Ellen Shultzabarger said, “The bureau will continue to place a high emphasis on invasive plant control, but we can’t do it alone. We need to be sure people know about invasive species, what they look like, and help to combat their impact and spread.”



Japanese knotweed is a prolific riparian invader.

Some readers may be unaware of the insidious nature of a few invasive plants. For example, tree of heaven is an extremely aggressive invasive tree. It doesn’t take long for landscapes to transition from one or two stems to thousands. Because tree of heaven is allelopathic, exuding chemicals into the soil that inhibit native competitors, it tends to encourage other exotic

species that evolved with it overseas. For this reason, areas overgrown with tree of heaven frequently also have infestations of barberry, Japanese stiltgrass, multiflora rose, Asiatic bittersweet, and even spotted lanternflies (another major forest threat).

As native acreage is lost, native herbivores concentrate their feeding into smaller areas of leftover native plant communities, inflicting disproportionate harm. Sustained

overgrazing often kills native plants, opening more sites for invasive species to populate, accelerating the ecological onslaught.

Invasive plants are a major problem on state forest lands. Many of these invaders arrive by the illegal dumping of yard waste, which often contains seeds and viable roots and shoots of invasive species.

Common invasive plants in state forests include:

- Mile a minute vine
- Tree of heaven
- Japanese/European barberry
- Autumn/Russian olive
- Asiatic bittersweet
- Japanese stiltgrass
- Multiflora rose
- Japanese knotweed
- Poison hemlock
- Bush honeysuckle

Infestations of invasive species are taken very seriously by the Bureau of Forestry. The bureau uses EDRR (Early Detection Rapid Response) protocol whenever a new invader is found, which usually destroys the invasive species before it becomes a problem. Due to the sheer number of acres the bureau manages, it is impossible to detect all outbreaks, however, leading to hard-to-control infestations.



Bureau forester spraying barberry infestation.

The invasive plant problem can be daunting, even for our hard-working foresters. Bureau botanist Chris Firestone said, “Even if it appears that you’ve eradicated a population of invasive plants, that doesn’t mean you won’t be fighting off years of regrowth due to viable seeds remaining in the soil.” Sometimes it is necessary to call in reinforcements, like in 2016 when Michaux State Forest staff used contractors to eliminate a

95-acre stand of cork and bee-bee trees near Mont Alto. Bureau staff continue to work on a management plan to treat invasive plants in this region.

The bureau has also implemented biological controls, releasing herbivorous weevils to control mile-a-minute vine. The weevils have been shown to target the invasive weeds

while avoiding native plants. Although the weevil will not eradicate mile-a-minute vine, it does have the ability to control its spread.

Part of the bureau's mission is to conserve native wild plants. To achieve this goal, control of invasive species is imperative, and we hope Pennsylvanians will help us in this fight.

Below are some things you can do to help in the fight:

- Plant only native plants at home and encourage others to do the same
- Eliminate invasive species in your landscape
- Never transfer yard waste to new locations
- Participate with local conservation groups to do invasive species "roundups"
- Learn more about invasive species and native plants of Pennsylvania, by viewing the Conservation/Wild Plants page:

<https://www.dcnr.pa.gov/Conservation/WildPlants/Pages/default.aspx>

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