

Ecology Q/As About Native and Non-Native Species: Part 2

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[Part 1](#) of this series addressed some of the questions that folks had about native and non-native species. Let's dive into some more answers to your questions!

Q: What can I do to help the natural areas?

A: You can always join an Invasive Management Area (IMA) workday, where volunteers eradicate non-native invasive weeds from parkland and restore the habitat. Contact me for more information or check out the [IMA workday calendar](#). Removing any target weeds from your home lot prevents them from spreading. When [leaving the leaves](#) is not possible, properly dispose of yard debris through curbside recycling or composting on your property; invasive plant seeds or vines capable of surviving the mulching process should be thrown in the trash destined for the landfill or incinerator. Never dump yard debris or otherwise encroach onto natural areas outside of your property. Consider adding native plants to your yard and encourage others to do the same, including neighbors, churches, schools, and HOAs. Before doing any work, always seek the landowner's permission first. The best way to help or thank park volunteers is to pick up after your dogs each time, every time, and dispose the waste in proper trash receptacles!

Q: After these IMA workdays, the area looks devastated. Bushes where birds nested and privacy screens are gone. How can this be better than simply leaving the invasive plants?

A: The level of disturbance depends on factors such as the target species and density. For example, garlic mustard pulls minimally affect the untargeted surroundings. Think of the invasive targets as a malignancy; medical teams select the appropriate clinical action for that cancer type and stage. Left without treatment, that growth will spread and cause even more harm than it currently does. Like surgeons operating on a patient to remove the tumor, IMA volunteers only hit specific non-native invasive weeds, leaving native plants to help the area heal and recover. If the work results in pulling every plant on a plot, then the infestation was dense.

There is more happening than what meets the eye. Invasive bushes may hold bird nests but fail to host the insects that the chicks need to grow. By removing the weeds today, we both prevent them from imminent dispersal and foster the native plants conducive to future bird populations. With favorable conditions, native vegetation fills into an area within several years, which addresses the privacy concerns. We tested a "slow kill" approach (where the weeds are trimmed but not removed) at a few sites, but that ineffective method amounted to performing surgery only to leave half of the tumor. Facing the facts and clearing all targets enables a much faster recovery. People still interested in all-season screens might consider planting fast-growing red cedars (*Juniperus virginiana*) on their side of the fence line. These junipers (not true cedars) are tall, bushy, and evergreen. Other excellent screening species are American holly (*Ilex opaca*), mountain laurel (*Kalmia latifolia*), sheep laurel (*K. angustifolia*), and American rhododendrons (*Rhododendron maximum*), although these species grow slower than red cedars.

Q: Hostas and crepe myrtles are from Asia but I don't see them spreading around. Are they OK to keep in my yard?

A: Many exotic species are "well behaved," do not escape cultivation, and are considered safe to grow. Some species, like hybrid tea roses (*Rosa x odorata*), struggle to survive in the Mid-Atlantic and southeastern climates. A handful of non-native species, such as [Callery pears](#) and [Japanese honeysuckle](#) (*Lonicera japonica*), were initially thought to be infertile or slow to reproduce, but decades later these plants proved to be invasive. The lag time from when a shrub is introduced and it becomes invasive averages between 50 to 75 years; for trees, it is around 200 years. Ecologically, hostas (*Hosta* sp.) and crepe myrtles (*Lagerstroemia indica*) equate to "plastic plants" because they contribute little to the ecosystem, but they can 1) help with erosion control, 2) provide shelter, and 3) supply some added benefits, such as air purification. Hostas, for example, directly benefit only a handful of animals, such as deer, bumblebees, slugs (most of which are themselves European invaders), and the occasional confused hummingbird.

Q: Slugs are invasive? I thought that they were natural garden pests.

A: Some slugs are invasive. The most obvious alien is the giant leopard slug (*Limax maximus*), which originated from Europe and North Africa and reaches four inches or more. Many of the exotic slugs have short mantles (that shield starting on top of its head and stretching down the body) extending less than halfway down the specimen. Native slug mantles, such as those belonging to the Philomycidae family, cover the whole body. Philomycid slugs are native in other parts of the world but those species are not a problem in Northern Virginia.

Q: Are some species native to Fairfax County invasive in other parts of the world?

A: Yes! Goldenrod (*Solidago* sp.) escaped cultivation in Europe and Asia. In China alone, Canadian goldenrod (*S. canadensis*) is blamed for dozens of native plant extinctions. In America, black cherry trees (*Prunus serotina*) are kept in check by potent strains of soil-borne, pathogenic *Pythium* fungi that causes root rot and seedling mortality. These trees are weeds in Europe due to the weaker *Pythium* varieties and favorable growing conditions there. The large, aggressive American bullfrog (*Lithobates catesbeianus*) devours just about any animal that fits in its mouth. From its native range—the eastern half of North America, bullfrogs are now found across to the Pacific coast, in parts of Europe, Asia, and South America. Extending into the Chesapeake Bay, ship ballast water carried comb jellies (including *Mnemiopsis leidyi*) to the Black Sea and other marine bodies. Unchallenged in their new home, comb jellies eat newly hatched fish and planktonic fish food, resulting in significant fish population reductions. None of these species are “bad” or “evil,” but organisms that cause problems when out of place.

Keep your questions coming!



Figure 1. Both of these images portray woodlands during a season when the dominant plant species are evident. The late spring and summer find native woodlands fully leafed out (A). This botanical diversity includes lycopodium, sassafras, grape, mapleleaf and arrowwood viburnums, trefoil, red oak and hickory saplings, red maple seedlings, and northern highbush blueberry. In late autumn, many non-native invasive plants still cling to their leaves, making them apparent (B) when most natives are dormant. This image shows low biodiversity in an area overrun by autumn olive, Amur honeysuckle, and winter creeper groundcover.

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