

February 26, 2024

To: Education, Energy, and the Environment Committee
From: Eric Walker
Re: Support of SB915

I submit this written testimony in support of SB915, the Biodiversity and Agriculture Protection Act, a crucial piece of legislation that amends and improves existing invasive species laws in Maryland.

I am a resident and homeowner in Maryland. I also have seventeen years of professional experience with invasive plant management. I have been involved with invasive plant control projects in over 30 National Park Service (NPS) units with the NPS Exotic Plant Management Team, worked as a noxious weed inspector for King County Noxious Weed Control Program in Washington State, and currently work in the natural resource management field in Maryland. During my time working with invasive plants, I have worked with the federal, state, county, municipalities, private landowners, various environmental groups, and many others to consult, advise, plan, and implement invasive plant control and habitat restoration projects.

Let's all take a walk into a typical forest patch on public land within the greater Baltimore area. As we approach this patch, we notice almost the entire piece of forested land is "edge" habitat. Forest fragmentation during urban development has left us with small strips and mosaic patches of woods. We notice the edge habitat is filled with non-native invasive species- a thicket of woody shrubs including multiflora rose, autumn olive, burning bush, bush honeysuckle. A tangle of invasive vines like Japanese honeysuckle, wintercreeper, and English ivy infuse the edge. Few, if any, native plants are found on these edges. Garlic mustard and stiltgrass carpet what little ground is available under these dense mats of invasive plants.

We make our way into the forest patch and notice a carpet of little yellow flowers throughout the patch- the invasive plant lesser celandine dominates the ground and has outcompeted precious native spring ephemerals like Virginia bluebell and trout lily. We also notice no native tree saplings growing up to replace the older trees- successional trajectories have been altered by invasive plants and deer overpopulation, forest regeneration has stalled in many places. Digging in the dirt reveals casings of invasive Asian jumping worms, which devour leaf litter and permanently alter soil chemistry. Functional ecosystem relationships are broken in this dirt. Native plants in our woodlands have intricate relationships with soil that depend on very specific soil chemistry. Garlic mustard and lesser celandine, among several other of our common invasives are allelopathic- they excrete chemicals into the soil around them that inhibits germination of any other plant species, while providing ideal soil chemistry for themselves. A patch of woody invasive shrubs sets up shop where a tree fell down and left a canopy gap. We notice English ivy completely engulfing and smothering native trees- which will surely be pulled down by these invasive vines in time. When these trees succumb to the vines they will reveal another canopy gap for invasives to occupy. On the forest edge, trees are toppled down by vines, more "edge" is created and the vines move inward looking for more trees to cover.

This legislation would prevent new invasive plants from spreading and establishing in Maryland. If similar legislation were adopted years ago, we likely could have avoided or mitigated the impacts of dozens of escaped ornamental plants. The following are all examples of escaped ornamental plants turned invasive, and just a few of their impacts we are seeing in our forest patches. These impacts are known and published in peer-reviewed academic journals- yet all of these plants are still available to purchase in nurseries in our area:

English ivy kills trees and decreases urban tree canopy. Italian arum has no known effective control methods. Purple loosestrife completely invades and permanently damages wetlands. Burning bush heavily infests woodlands and engulfs the forest floor with thousands of seedlings. Privet shrubs are widespread yet their leaves are not palatable to native insects. Bush honeysuckle alters soil chemistry and forms dense thickets. Leatherleaf mahonia creates deep shade and outcompetes native flora. Deer prefer to browse native viburnum instead of Asian viburnum, decreasing the native population. White mulberry has compromised the genetic integrity of the native Red mulberry, through hybridization. Callery pear, like porcelain-berry, invades and takes over, and is extremely difficult to remove once established. Asian bittersweet vines girdle and pull down trees, and reduce populations of native American bittersweet through hybridization. Wintercreeper, like Vinca, becomes a monocultural groundcover, covering and smothering native plants until they die. . Asian wisteria girdles and chokes native shrubs and trees. Chinese silvergrass grows into dense clumps, pushing out natives through competition.

In any given town in the area, numerous individual bamboo patches continue to slowly expand. Of the several hundred patches of bamboo in my area, many are shared by multiple landowners. Some homeowners either don't know or don't care about the impacts, while others have had their property damaged and devalued from what is often their neighbors' preferred method of privacy screening. Bamboo is incredibly difficult to remove once it's established. Excavating, grinding, and spraying with herbicide, for at least 5-10 years may work to reduce and suppress the bamboo- but permanent removal is not certain and often impossible. If you are a homeowner with a neighbor that has planted bamboo, you already have felt the impact of that mistake, or you will soon. Bamboo infestations will not stop increasing in size, and are nearly impossible to remove once established.

The examples above are just a few of the numerous, serious impacts non-native invasive plants impose on our people and environment in Maryland. If only legislation like SB915 would have been in place years ago, our natural areas would be healthier, and the high cost of managing these invasives could have been avoided altogether. Yet, we now have a chance to learn from history and avoid repeating the same mistake of not regulating invasive plants. By establishing realistic, common-sense rules, SB915 will save millions of dollars in future management costs and protect our already imperiled natural areas from further damage.

Thank you for taking the lead on setting these practical measures in place.

A handwritten signature in black ink, appearing to read "Eric Walker", written in a cursive style.

Eric Walker