

**HJR527 Invasive Species Workgroup
Tuesday, August 24, 2021
Pocahontas State Park, Chesterfield, Virginia**

WORKGROUP MEMBERS PRESENT

Larry Nichols, VDACS
Nathan Burrell, DCR
Neal P. Beasley, Virginia Nursery and Landscape Association
Nancy Vehrs, Virginia Native Plant Society
Ben Rowe, Virginia Farm Bureau
Kyle Shreve, Virginia Agribusiness Council
Corey Connors, Virginia Forestry Association
David Lisowski, Virginia Chapter of ASLA
Stephen Living, DWR
Dean Cumbia, VDOF
Stacey Moulds, VDOT
Carla Passarello, Garden Club of Virginia
Glenda Booth, Audubon Society of Virginia IT Infrastructure Partnership
Jim Hurley, Blue Ridge PRISM

AGENCY STAFF PRESENT

Tom Smith, DCR
Michael Fletcher, DCR
Martin Krebs, VDOT
David Gianino, VDACS

OTHERS PRESENT

Zachary Shelton, The Nature Conservancy
Ruth Douglas, Virginia Native Plant Society

CALL TO ORDER

Mr. Burrell called the meeting to order at 10:04 a.m. He welcomed attendees and thanked them for coming to the third meeting of the work group. He noted that the group was following current CDC guidelines regarding masks and social distancing.

Mr. Burrell called for introductions.

APPROVAL OF MINUTES FROM MEETING #1 AND #2

Mr. Shreve moved that both sets of minutes be approved as presented by staff. Mr. Connors seconded. The motion carried and the minutes were approved.

IMPACT OF INVASIVE PLANTS ON VIRGINIA'S BIODIVERSITY

Chris Ludwig, retired Chief Biologist from DCR, gave a presentation regarding the Impact of Invasive Plant's on Virginia's Biodiversity. Mr. Smith assisted with the presentation while Mr. Ludwig presented via conference phone. A full copy of Mr. Ludwig's presentation is included as Attachment #1.

Mr. Ludwig's presentation included the following comments:

Impact of invasive plants on Virginia's biodiversity

Definition of Invasive Plants from the DCR Natural Heritage web page.

Invasive plants are those species intentionally or accidentally introduced by human activity into a region in which they did not evolve and believed to cause harm to natural resources, economic activity, or humans.

Mr. Ludwig noted:

The Virginia Department of Conservation and Recreation's Division of Natural Heritage currently lists 90 invasive plant species that threaten or potentially threaten our natural areas, parks and other protected lands in Virginia. This represents about 15% of all non-native plants in Virginia and less than 3% of all native and naturalized vascular plants known from the Commonwealth.

Mr. Ludwig reviewed the Virginia Invasive Plant Species List. A copy of the list was provided to members and is available on the DCR website. The species are ranked by the ecological or economic severity of their threat.

Mr. Ludwig noted that Virginia's Biodiversity are all the native species believed to have evolved in this region.

These are taxa that would have been of this place at the time of European Colonization. It represents the total genetic heritage of the Commonwealth.

Every native species you encounter be it plant, animal, or other is held within this definition. That includes some 500 bee species, 2600 vascular plant taxa, 180 plus butterflies, 2000 plus moths, and the list goes on and on.

Some of that biodiversity has been lost forever, including the Passenger Pigeon and the Carolina Parakeet, but much remains and it is this legacy that is impacted by invasive plant species.

Mr. Ludwig noted that there were three major threats to holding on to Virginia's biodiversity.

- Habitat Loss/Fragmentation
- Climate Change
- Invasive Species

Mr. Ludwig noted that a word search of the 2015 Virginia Wildlife Action Plan showed that the phrase habitat loss and habitat fragmentation only showed up 28 times in the 1135 page document. The phrase climate changes showed up 693 times and the term invasive species showed up 534 times.

Mr. Ludwig gave visual representations of habitat loss and fragmentation.

Mr. Ludwig noted that the second threat, climate change has certainly arrived, with larger, less predictable storms, a rise in global temperatures, and altered precipitation patterns, but our ability to predict the trajectory of this change is hampered by a lack of data – we are living in a no-analog future when it come to our climate.

While the impacts to biodiversity from climate change are difficult to predict, the impacts of habitat loss and invasive species are more tangible and relatively easy to mitigate.

Mr. Ludwig advised that leaves invasive species as the third widely-recognized threat to our biodiversity. It's why this group was formed and I am here to lay out some of the reasons invasive species pose a threat to our biodiversity. Invasive plant species reduce our native biodiversity through many mechanisms, some known, and many as yet to be discovered.

Invasive species directly and swiftly alter our native plant communities, causing a loss of plant diversity and alteration of plant community structure. For example, this is a common site in our tidal marshlands where common reed has taken over thousands of wetland acres.

Mr. Ludwig noted that the reasons invasions happen so quickly include:

- Rapid growth and maturity
- Prolific seed production
- Highly successful seed dispersal, germination and colonization
- Rampant vegetative spread
- Lack of pathogens and herbivores

Another aspect to consider in the loss of diversity – not only do you lose plant species – you lose animals. In a 2020 paper by Doug Tallamy, compelling arguments are made that invasive plant species are partially responsible for the major insect decline in the last 40 years or so (the so-called “insect apocalypse”). While his findings are controversial when scaled to the global level, numerous small-scale studies are illustrative...

Some 96 percent of North American terrestrial birds rear their young on insects, so when insects decline, they do too

Consider the findings of Desirée Narango and a team of field assistants that measured what happens to breeding Carolina chickadees and the caterpillars that are essential food for their chicks in the suburbs of Washington, D.C. Among their findings is that parent birds foraged for food on native plants 86 percent of the time to provide their young with 6-9000 caterpillars a single brood requires.

Why native plants? Because that's where the caterpillars are. 90% of our insects are specialized to use specific plant lineages that they co-evolved with. As a result, our native plants have thriving native insect communities. The exotic plants have less to offer.

Narango found that yards dominated by introduced plants produced 75 percent less caterpillar biomass than primarily native landscapes and were 60 percent less likely to have breeding chickadees at all. Nests that chickadees did build in yards with many non-native plants contained 1.5 fewer eggs than nests on properties dominated by natives.

Recommendation by Ms. Booth

Ms. Booth presented to the workgroup a suggested outline for how the group should operate. A copy of this proposal is included as Attachment #2. She noted that she had several discussions and emails to discuss how the group would proceed.

Mr. Nichols noted that the voting members of the workgroup are defined in the legislation. Additional interest groups were invited to participate. Each group has one vote. A list of members had been provided to the workgroup and is available from DCR. He noted that votes would be from the members present at the meeting.

Mr. Burrell noted that recommendations may be made by members throughout the process. These will be included in the report whether or not they are adopted by the group.

Mr. Nichols advised that it would be important to identify the pros and cons of each recommendation in the report provided to the General Assembly. The intent is to provide as much information as possible in order that the General Assembly may make the appropriate decisions.

Mr. Hurley inquired about the ability of public comments to be reflected in the minutes.

Mr. Burrell noted that public comments, as well as written comments, would be included in the minutes.

Ms. Vehrs inquired regarding the availability of minutes.

Mr. Fletcher advised that the minutes would be emailed to members. They will also be posted on the Virginia Regulatory TownHall and the DCR website.

Discussion of Option 2 and Option 3

Mr. Nichols turned to the agenda. The intent had been to address Options 2 and 3:

- OPTION 2: Extensive Statutory Changes
 - Statutory Changes: Amend the Noxious Weeds Law to prohibit the sale of all plants listed on Virginia's Invasive Species Plant List
 - Evaluation of measures to reduce, mitigate and eliminate the continued sale of invasive plant species in Virginia.

- OPTION 3: Modified Statutory Changes
 - Statutory Changes: Amend the Noxious Weeds Law to restrict the continued sale of invasive plant species in Virginia.
 - Evaluation of measures to reduce, mitigate and eliminate the continued sale of invasive plant species in Virginia.

Mr. Nichols advised that it might be more beneficial to address the five bullets under each option rather than separate discussions. Those five bullets are:

- Labeling recommendations
- Tax recommendations
- Adding invasive species to the current Noxious Weeds List
- Education and Outreach
- Increase the use of native plants on state and local properties

Statutory Changes vs. Regulatory Changes

Mr. Nichols gave presentation regarding Statutory Changes and Regulatory Changes.

HJ527

Directs the workgroup to make recommendations regarding:

- (a) Statutory changes, and
- (b) Changes to regulations or guidance documents adopted by relevant agencies, including changes related to the placement of plant species on the Noxious Weed List.

HJ527 directs the workgroup to:

Evaluate measures to reduce, mitigate and eliminate the continued sale of invasive plant species in Virginia (“in the list of Virginia invasive plant species maintained by the Department of Conservation and Recreation”)

- Labeling recommendations
- Tax recommendations
- Adding invasive species to the current Noxious Weeds List
- Education and Outreach
- Increase the use of native plants on state or local properties

Statutory vs Regulatory

Statutory:

Statutory changes - General Assembly
Noxious Weeds Law (Va. Code §3.2-800)

Plant & Plant Products Inspection Law (Va. Code §3.2-3800)
Tax Laws

Regulatory:

Regulatory changes - Board of Agriculture and Consumer Services (2 VAC 5-317)
Virginia's Noxious Weeds Regulation (2 VAC 5-317)

Guidance Documents

State agencies

Noxious Weeds Law

Chapter 8. Noxious Weeds

Chapter 8. Noxious Weeds [Read Chapter >](#)

- [§ 3.2-800](#) Definitions
- [§ 3.2-801](#) Powers and duties of Commissioner
- [§ 3.2-802](#) Powers and duties of Board; quarantine
- [§ 3.2-803](#) Cost of controlling noxious weeds
- [§ 3.2-804](#) Prohibited acts; noxious weeds
- [§ 3.2-805](#) Authority to stop sale or delivery of noxious weeds
- [§ 3.2-806](#) Access to plants or plant products; state and local police cooperation upon request
- [§ 3.2-807](#) Inspection of premises and conveyances
- [§ 3.2-808](#) Injunctions
- [§ 3.2-809](#) Penalty for violation

§ 3.2-802. Powers and duties of Board; quarantine.

A. The Board shall establish by regulation, after a public hearing, those weeds deemed to be noxious weeds not otherwise so declared by the terms of this chapter. Prior to designating a living plant or part thereof as a noxious weed, the Board shall review the recommendations of an advisory committee established by the Commissioner to conduct a scientific risk assessment of the proposed plant. The assessment shall include the degree to which the plant is detrimental to crops; surface waters, including lakes; other desirable plants; livestock; land or other property; public health; the environment; and the economy. The advisory committee shall also include in its recommendations to the Board an analysis of the current and potential in-state commercial viability of the specific plant species and the economic impact on industries affected by the designation of the plant as a noxious weed.

Noxious Weeds Regulation

Chapter 317. Regulations for the Enforcement of the Noxious Weeds Law

Section 10	Definitions
Section 20	Tier 1, Tier 2, and Tier 3 noxious weeds
Section 30	Conditions governing the movement of regulated articles
Section 40	Issuance and cancellation of certificates and permits
Section 50	Assembly and inspection of regulated articles
Section 60	Attachment and disposition of certificates and permits
Section 70	Inspection and disposal of regulated articles
Section 80	Eradication and suppression activities for Tier 1 or Tier 2 noxious weeds
Section 90	Nonliability of the department
Section 100	Noxious Weeds Advisory Committee
FORMS	FORMS (2VAC5-317)

Provisions of Noxious Weeds Regulation must align with the Noxious Weeds Law.

Statutory changes may be needed in order to make regulatory changes.

Example: The list of noxious weeds in the Noxious Weeds Regulation is based on the definition of “noxious weed” in 3.2-800.

A change to the definition of “noxious weed” in 3.2-800 will be required in order to list plants which are commercially grown in Virginia

Noxious Weeds Law

§ 3.2-800. Definitions.

"Noxious weed" means any living plant, or part thereof, declared by the Board through regulations under this chapter to be detrimental to crops, surface waters, including lakes, or other desirable plants, livestock, land, or other property, or to be injurious to public health, the environment, or the economy, except when in-state production of such living plant, or part thereof, is commercially viable or such living plant is commercially propagated in Virginia.

§ 3.2-804. Prohibited acts; noxious weeds.

No person shall violate any provisions of this chapter or any regulation adopted hereunder. No person shall move, transport, deliver, ship, or offer for shipment into or within the Commonwealth any noxious weed, or part thereof, without first obtaining a permit from the Commissioner. Such permit shall be issued only after it has been determined that the noxious weed is generally present already or it is for scientific purposes subject to prescribed safeguards.

HJ527 directs the workgroup to:

Evaluate measures to reduce, mitigate and eliminate the continued sale of invasive plant species in Virginia (“in the list of Virginia invasive plant species maintained by the Department of Conservation and Recreation”)

- Labeling recommendations
- Tax recommendations
- Adding invasive species to the current Noxious Weeds List
- Education and Outreach
- Increase the use of native plants on state or local properties

Ms. Booth asked why the workgroup was limited to focusing on the Noxious Weed Law.

Mr. Nichols explained that it was not a limitation, but that the law was chosen to be the initial focus of discussion.

Mr. Lisowski acknowledged that the Noxious Weeds law is the controlling factor. However the barrier is that the law does not allow for plants in commerce to be added.

Mr. Nichols advised that any changes to the Noxious Weeds law would have to be made by the General Assembly. Changes to the regulation would go through the regulatory process.

Mr. Hurley suggested that it might be helpful to have a conversation regarding the types of things that the group would like to put on the table, regardless of the type of changes required. He suggested working through a set of policy provisions. The workgroup could discuss the changes desired, but staff would be able to identify the process. He noted that the July meeting had substantial discussion regarding the mechanics of the process.

Mr. Nichols commented that his presentation was intended to provide structure and framework for the workgroup to move forward to address the provisions of the resolution.

Mr. Hurley noted that he and Mr. Beasley had extensive discussions regarding what should be considered by the group. He commented that it is important to note that there are several voluntary ideas also up for discussion.

Mr. Living commented that it was important to get an understanding of the different positions of the various workgroup members. He noted that some are coming from an ecological standpoint while others are concerned with the economics. He advised that to look at the issue responsibly with his colleagues he needed to have an understanding of why a certain plant might be important.

Mr. Shreve noted that there had been different terminologies used in the discussions. He advised that it was important to understand that noxious weeds are different than invasives, and also different than non-native plants.

Mr. Living commented that it was important to have an understanding of which plants are important to the landscape industry that some would like to see eradicated.

Mr. Beasley expressed frustration that in the course of the meetings, the conversation has not progressed. He noted that he could support Option One for no change. However, that does not mean that his industry is not willing to cooperate. The industry can adapt by changing the use of specific plants and what retailers offer for sale. He advised that he could not support any of the plants on the invasive species list being added to the noxious weeds list. He noted that in the Noxious Weeds Law whether a plant was commercially viable was the only projection for the landscape industry.

Mr. Shreve noted that what is commercially viable in one part of the state may not be in another. He suggested that there needed to be parameters around the discussions of the plants. Taking out the commercially viable option blurs the line between invasive and non-natives.

Mr. Hurley noted that the challenge was about education and outreach. Can acute damage be stopped in a way that will not compromise the ability to introduce non-invasives and non-natives into the trade.

Mr. Shreve agreed that was the point of the workgroup. The challenge is with the details of how to achieve that.

Mr. Nichols suggested that a starting point might be what the landscape and nursery industry would support.

Ms. Passarello noted that it was important to define education. Does that mean volunteer programs or specific education among the universities? She also noted that for organizations such as the Garden Clubs of Virginia there is a need to go through the list plant by plant.

Mr. Hurley commented that the industry would be reluctant to remove plants from distribution.

Mr. Shreve responded that the issue is not about specific plants, rather the discussion needs to be about systematic changes.

Mr. Shreve noted that the two biggest contributors to the spread of invasive species are fragmentation around development, and climate change. The discussion should be about what systematic changes are viable and how easy it is to get a specific species off the market.

Mr. Hurley commented that there needed to be a discussion of taking certain plants out of the trade, specifically those doing excessive damage.

Mr. Shreve advised that was his understanding of the discussion, but noted not all may be in agreement.

Ms. Passarello asked if there was a list of which plants were commercially viable.

Ms. Vehrs commented that was getting away from the mission. The workgroup is charged with examining measures to evaluate, reduce, or eliminate invasive plants. The charge is not to determine what is commercially viable.

Mr. Nichols suggested that having a discussion on common ground would be helpful.

Mr. Beasley advised that most of the plants on the DCR list are not of concern to the industry. He suggested there were about eight that the industry would oppose adding to the noxious weeds list.

Mr. Hurley noted that some thirty plants on the list are identified as commercially viable. If they are being traded they cannot be forwarded to the noxious weeds committee for consideration.

Ms. Passarello suggested that it would be helpful to focus on plants that had an acceptable substitute.

Mr. Beasley advised that he would not like to stifle creativity in the industry. He did note that some issues can be self-regulated. For example the Bradford Pear is waning in sales. He commented that the challenge is also that development is outpacing the growers with regard to certain plants. He noted that about eighty percent of plants in a nursery center are non-native.

Mr. Lisowki noted that the ASLA mission statement indicates that they do not support invasive species, and encourages nurseries not to grow them.

Mr. Nichols noted that the focus on education is an important component however, the workgroup has not identified what that would look like.

Ms. Booth noted that the discussion of development and consumer preferences is beyond the scope of the workgroup. She asked Mr. Beasley for his recommendations.

Mr. Beasley commented that a regional focus is needed. Every locality has an ordinance with a list of specifics of what not to plant.

Mr. Shreve advised that the outreach needs to be targeted to different sectors with an all of the above approach.

Mr. Hurley noted that VDOT has is conducting a statewide vegetation survey to determine plants that are not doing well. This could become the basis of a list of species to be planted.

Ms. Vehrs advised that the Plant Virginia Natives Campaign is a marketing initiative through the Coastal Zone Management of the Department of Environmental Quality. This includes a list of commercially available native plants on a regional basis. This is currently limited to the coastal zone.

Ms. Passarello asked if there were native seed suppliers in Virginia. The response was that they are very small.

It was suggested that a recommendation to the state budget address this and consider the development of the native seed industry.

Mr. Beasley noted that solar energy farms are expanding because of government mandates. They can also be used for native seed harvesting and a place for habitat creation.

Mr. Shreve noted that many land use decisions are being made at the local level. He noted that solar farms are part of the water quality and WIP goals.

Mr. Smith noted that the DCR Natural Heritage program has native plant recommendations for smart solar planting. DCR has worked with DEQ to develop a scorecard of what native plants do well with solar projects. This is also part of a regulatory process happening at DEQ.

Mr. Beasley responded that if the need for native plants for solar plantings were there, the industry would respond accordingly.

Mr. Rowe suggested there might be tax considerations for solar farms to plant certified, weed free seed.

Ms. Booth noted that any tax incentive also requires a plan for replacement revenue.

Mr. Smith noted that DCR and DEQ had looked at solar planting and developed recommendations. He advised that there was a strong case to present to the General Assembly.

Mr. Beasley commented that the issue was not just seeding the land under solar installations, but that there were miles of buffers required as well. He noted that obtaining trees for planting could be difficult.

Ms. Moulds noted that seed money to develop the plants and trees might be needed. She commented that it seemed that the industry was bearing the cost of the research.

The discussion moved to ways that groups can collaborate. It was suggested that the Master Gardener document could be revised. That document is distributed through Virginia Tech.

Mr. Beasley suggested a learning module could be developed. He noted that funding this would be a challenge.

Mr. Nichols summarized the comments by noting that the workgroup had focused on outreach and education. He noted that using a program like the Coastal Zone Management Program and expanding that across the state would be helpful.

It was also noted that the workgroup discussed developing native plant seeds that could be used for solar plantings or elsewhere. This might require a tax break or some other financial incentive.

Mr. Rowe noted that currently the development of native seeds is mainly happening in North Carolina. He suggested that some sort of research component through Virginia Cooperative Extension would be able to address species native to Virginia.

Mr. Beasley noted that there are efforts happening at the developer level.

Mr. Nichols noted that it all comes back to outreach and education.

Ms. Booth asked about the process and whether the group had reached consensus on these issues.

Mr. Nichols noted that the comments and suggestions would be noted in the report. Draft recommendations will be noted and the committee will have the opportunity for further discussion.

Mr. Nichols suggested that there needed to be a discussion about the retail side of efforts.

Mr. Beasley noted that Mr. Regelbrugge from AmericanHort would be at the next meeting and would be able to address that issue.

Mr. Living noted that one topic not being discussed was the increased use or sale on state or local properties. He commented that there are some very direct implications such as an agency policy or an executive order. He recommended that the state prioritize the use of native plants.

Ms. Booth advised that Fairfax County has adopted a policy to use native plantings on County owned properties.

Mr. Smith noted that DCR has a policy for plantings on DCR owned lands. The Governor's office has expressed interest in this policy for consideration of an executive order.

Mr. Burrell noted the time and called for public comment.

PUBLIC COMMENT

Ruth Douglass noted that she was an observer with the Native Plants Society and Blue Ridge PRISM. She commented that she was encouraged by the discussion.

Mr. Hurley asked if Mr. Shreve, Mr. Beasley, and Mr. Rowe could consider ways that the law might be changed to consider removing some species not of concern to the industry from commercial trade sooner rather than later.

Mr. Nichols commented that was a good place to end the day's discussion. The agenda for the next meeting will be revised to reflect comments and issues raised.

Mr. Burrell noted that one more meeting was scheduled but that additional meetings may be necessary.

ADJOURN

The meeting adjourned at 12:52 p.m.

ATTACHMENT #1

Presentation by Chris Ludwig, Retired Chief Biologist, DCR



Invasive Plants

- Invasive plants are those species intentionally or accidentally introduced by human activity into a region in which they did not evolve and believed to cause harm to natural resources, economic activity, or humans.



Lonicera mackii

Virginia Invasive Plant Species List

Scientific Name	Common Name	Virginia Invasiveness Rank	REGION		
			Mountain	Piedmont	Coastal
<i>Ailanthus altissima</i>	Tree-of-heaven	High	*	*	*
<i>Alliaria petiolata</i>	Garlic Mustard	High	*	*	*
<i>Alternanthera philoxeroides</i>	Alligator-weed	High	*	*	*
<i>Ampelopsis brevipedunculata</i>	Porcelain-berry	High	*	*	*
<i>Carex kobomugi</i>	Japanese Sand Sedge	High	*	*	*
<i>Celastrus orbiculatus</i>	Oriental Bittersweet	High	*	*	*
<i>Centaurea stoebe ssp. micranthos</i>	Spotted Knapweed	High	*	*	*
<i>Cirsium arvense</i>	Canada Thistle	High	*	*	*
<i>Dioscorea polystachya</i>	Cinnamon Vine	High	*	*	*
<i>Elaeagnus umbellata</i>	Autumn Olive	High	*	*	*
<i>Euonymus alatus</i>	Winged Euonymus	High	*	*	*
<i>Ficaria verna</i>	Lesser Celandine	High	*	*	*
<i>Hydrilla verticillata</i>	Hydrilla	High	*	*	*
<i>Iris pseudacorus</i>	Yellow Flag	High	*	*	*
<i>Lespedeza cuneata</i>	Chinese Lespedeza	High	*	*	*
<i>Ligustrum sinense</i>	Chinese Privet	High	*	*	*
<i>Lonicera japonica</i>	Japanese Honeysuckle	High	*	*	*
<i>Lonicera maackii</i>	Amur Honeysuckle	High	*	*	*
<i>Lonicera morrowii</i>	Morrow's Honeysuckle	High	*	*	*
<i>Lythrum salicaria</i>	Purple Loosestrife	High	*	*	*
<i>Microstegium vimineum</i>	Japanese Stiltgrass	High	*	*	*
<i>Murdannia keiskei</i>	Marsh Dewflower	High	*	*	*
<i>Myriophyllum aquaticum</i>	Parrot Feather	High	*	*	*



Tree-of-heaven



Phragmites



Wavyleaf Grass

Virginia's Biodiversity

• All our native species believed to have evolved in this region













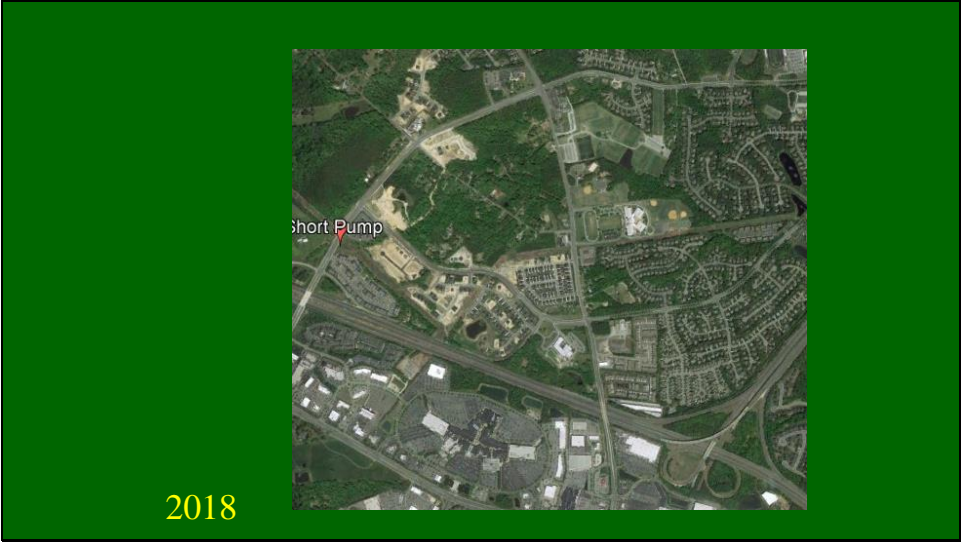


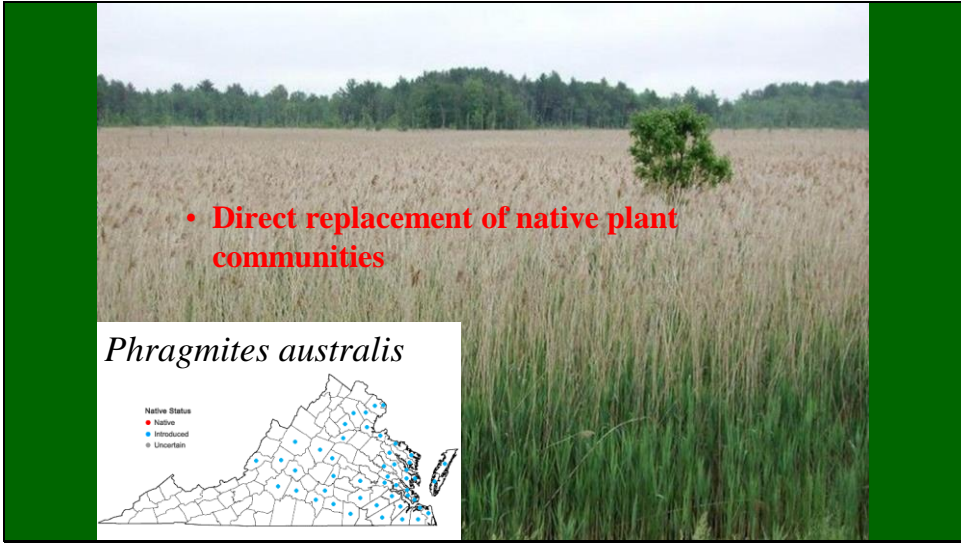
Holding on to our biodiversity

- Three major threats....
 - Habitat Loss/Fragmentation
 - Climate Change
 - Invasive Species

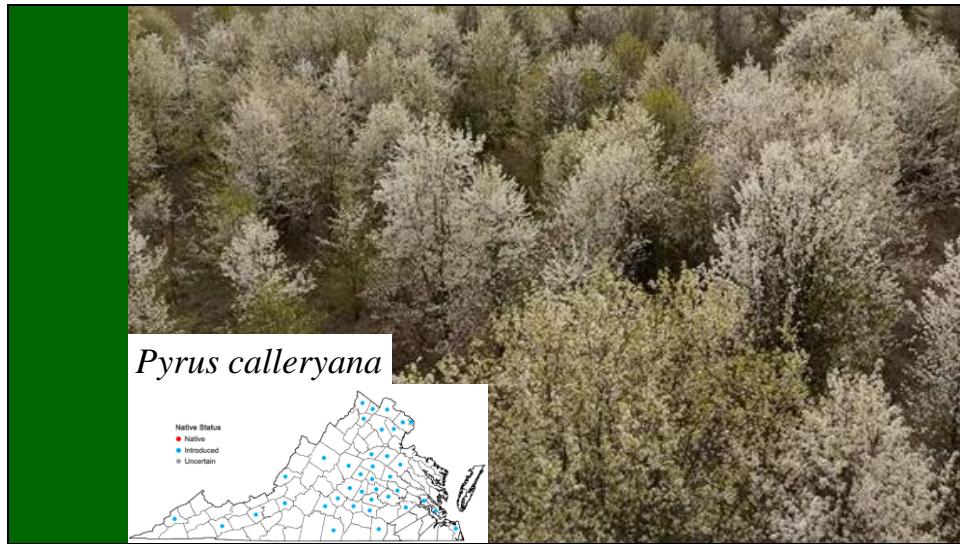


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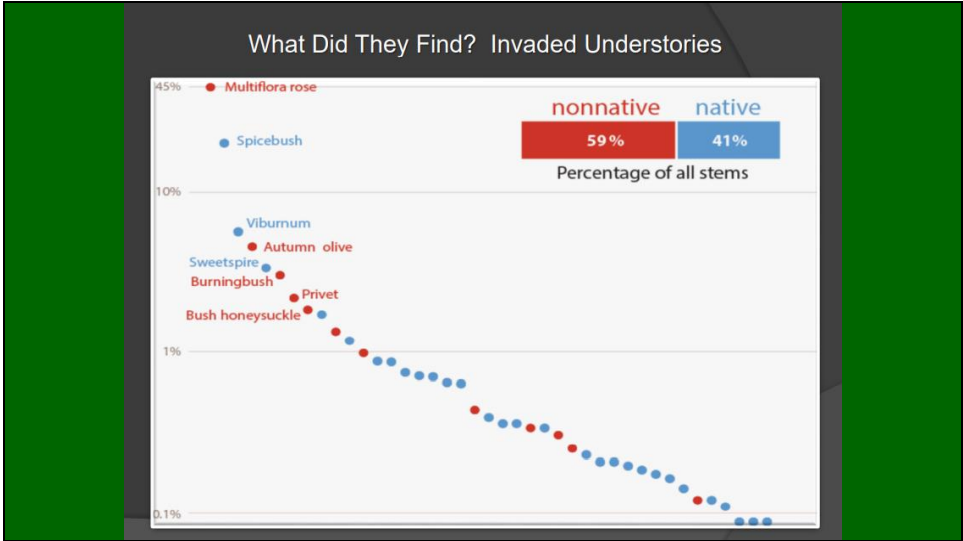
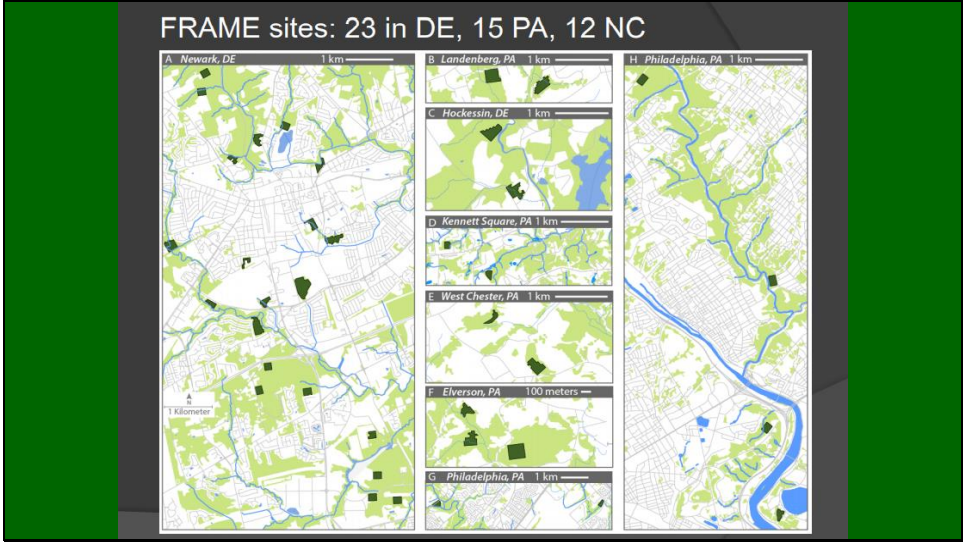


Small Forest Plant Survey ("FRAME") Eastern U.S.
U.S. Forest Service & Univ. of Del.



- Vast majority of forests are smaller than a Best Buy parking lot.
- Most forests are regrowth from abandonment of prior use over last 150 years.
- USFS/UD studied 50 forests in DE/PA/NC
- Looked at overstory, understory, vertebrates, invertebrates, leaf litter, and soil chemistry

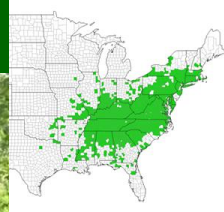
The slide features a photograph of a person in a green shirt standing in a lush, green forest, looking towards the trees. The background is a dark grey gradient with green vertical bars on the left and right sides.



Why these invasions happen fast...

- Rapid growth and maturity
- Prolific seed production
- Highly successful seed dispersal, germination and colonization
- Rampant vegetative spread
- Lack of pathogens and herbivores

Japanese Stilt Grass, *Microstegium vimineum*



1919, TN





Some 96 percent of North American terrestrial birds rear their young on insects, so when insects decline, they do too.





Other 'novel' threats

- Buckthorn (*Rhamnus cathartica*) in vertebrates through Emodin poisoning
- Nandina (*Nandina domestica*) in birds through Cyanide poisoning
- Honeysuckle shrubs (*Lonicera* spp.) negative impact on bird migration through inferior nutrition provision



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ATTACHMENT #2**Invasives Workgroup Process submitted by Glenda C. Booth**

To help members prepare for meetings, work constructively together and make recommendations to the General Assembly, as directed by H.J. Res. 527, this is an effort to clarify the processes that the Invasive Plants Workgroup will follow. These are based on staff emails and answers to my questions.

Freedom of Information Act (FOIA): This workgroup is a public body and is subject to FOIA. We should not email or discuss the work of the group with more than one other member at time. Virginia's FOIA law defines a meeting as three or more members and includes electronic communication.

Workgroup Members: The number of current voting members in the workgroup is unclear. Representatives of the state agencies listed in the House Joint Resolution 527 are voting members of the workgroup. Presumably, they are the Departments of Forestry, Transportation, and Wildlife Resources.

Meetings: Staff will set dates for meetings and notify the workgroup as soon as dates are determined.

Agenda: Staff creates the agenda and will provide it before each meeting. Staff will add items as requested by the workgroup. Workgroup members who wish to suggest topics for a meeting must raise it with the entire workgroup for a vote. If there is support for adding the topic, staff will add the topic for a future meeting. Workgroup members must provide their "presentation" to the workgroup at least one week before the meeting. Staff defines "presentation" as an agenda item that has been approved by the workgroup.

Quorum: A quorum is 50% +1 of the workgroup members present. The workgroup can meet without a quorum, but no official votes will be taken.

Decision-making: Staff's goal is to seek unanimous agreement on recommendations by holding a recorded vote. Staff intends to document consensus on recommendations and dissenting opinions.

Public Comment Periods: All meetings have a public comment period at the end of the meetings. Staff will try to ensure all who wish to speak have two minutes to speak. Staff may have to limit speakers' time. Staff will include all public comments in the final report in an appendix.

Final draft report: Staff will send the final draft report to all workgroup members for review as early as possible with a target of one week for review and comment. Workgroup members should submit comments in writing to workgroup staff leads.

Dissenting and additional views: Workgroup members can submit dissenting and additional views in a written format and staff will include them in the appendix of the final report.

Alternates: All workgroup members were requested to provide an alternate member to serve in the workgroup member's absence.

ATTACHMENT #3

WRITTEN COMMENTS

The following written comments were provided to staff.

Dawn Williamson, Mechanicsville, Virginia

I have been battling invasive plant species, mentally and physically, for the majority of this year. I own 3 acres in Hanover County, which encompasses my home, and several acres of woods. The queen nemesis is *Wisteria sinensis*, however, there is Oriental bittersweet, Porcelain berry, and numerous others in the mix. While the invasive plants have been here all along, I recently became hyper aware of the exact destruction being performed on my watch. I have had a parade of experts come out to the property and have obtained four quotes to begin the removal of the invasive plants. The estimates range in the thousands of dollars and always include the caveat "this is not a one-and-done."

This being said, we desperately need legislation to halt the sale of invasive plant species, widespread education programs for the public, and optimally, grant funds for removal projects. I attended the Blue Ridge PRISM Invasive Species workshop on June 24, 2021, which was informative and well presented. I learned that after habitat destruction, the take over of invasive plant species is the second most detrimental problem to affect our environment. With the amount of construction I have witnessed in the Hanover area alone, this matter is urgent. Thank you for your time and the work your department is doing in this regard.

Craig Regelbrugge, AmericanHort

Regelbrugge Perspectives Regarding VA Invasive Plant Working Group Discussion of "Option 2" – 8/24/21

I would suggest to the working group that simply prohibiting the sale of all plants listed on Virginia's Invasive Plant Species list would be a blunt-instrument approach that will fail to achieve the outcomes some of our colleagues desire. Having carefully reviewed the list, DCR it certainly appears that most of the listed species (certainly the unintentional introductions, and even some of the intentional introductions brought to the country many years ago) would be logical candidates for Noxious Weed listing. However, some merit a much more considered approach, given the more difficult choices and tradeoffs.

The invasive species challenge writ large is complex, and will defy simple solutions. To put it quite frankly, *Homo sapiens* is the most invasive species of all. We dramatically alter our surroundings to suit and sustain us. Our altered surroundings often bear little resemblance to those which sustained nature as we knew it prior. Nearly everything we do, it could be argued, has negative implications for biodiversity and natural ecosystem functions. The ways in which we alter and use land often exacerbate invasive species harmful impacts. And of course, humans introduce and cultivate a wide array of animal and plant species for food, clothing, shelter, companionship.

Plants have been introduced – intentionally and unintentionally -- for hundreds of years by government, institutions, professionals, hobbyists, and others. I suspect we will have near-universal agreement on

the unintentional introductions, list them as noxious weeds, devise strategies for managing, containing, or (more rarely) eradicating them.

How to approach those plants that were introduced intentionally, and are still commercially farmed as horticultural crops, yet may also have some undesirable properties, is more complicated. Consideration is complicated not only by varied understanding or appreciation of what constitutes a problem, but also by legitimate differences in view regarding intended outcomes, values, preferences, benefits, and harms. Blanket listing of all plants of concern (e.g., the full DCR list) has the potential to do much harm as well as some “good.” While on one hand I can appreciate the frustration and concern over unintended impacts, the fact remains, there are legitimate differences of opinion with respect to values and preferences, benefits and harms. And fundamentally, every response tool has its limitations – including prohibitions via law and regulation that are doomed to be poorly or unenforceable.

With respect to Option 2, which would envision extensive statutory changes, in my opinion this approach will be divisive, and constitute a “blunt-instrument” response that will be challenging to implement and will not likely yield the intended result.

In 30 years of professional experience working on invasive species issues, I’ve observed that the most progress has resulted from dialogue where goals, measures, and actions emerge from a process that seeks to build consensus and prioritize actions, rather than one-sided initiatives superimposed through blunt legislative or regulatory dictates. I will share a few more detailed reflections on the topic at the September meeting.