Northern Virginia Native Plant Campaign

www.plantnovanatives.org

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FY11, Task 54

Northern Virginia Regional Commission

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Virginia Coastal Zone MANAGEMENT PROGRAM

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Plant NoVA Natives

Naturally Beautiful!

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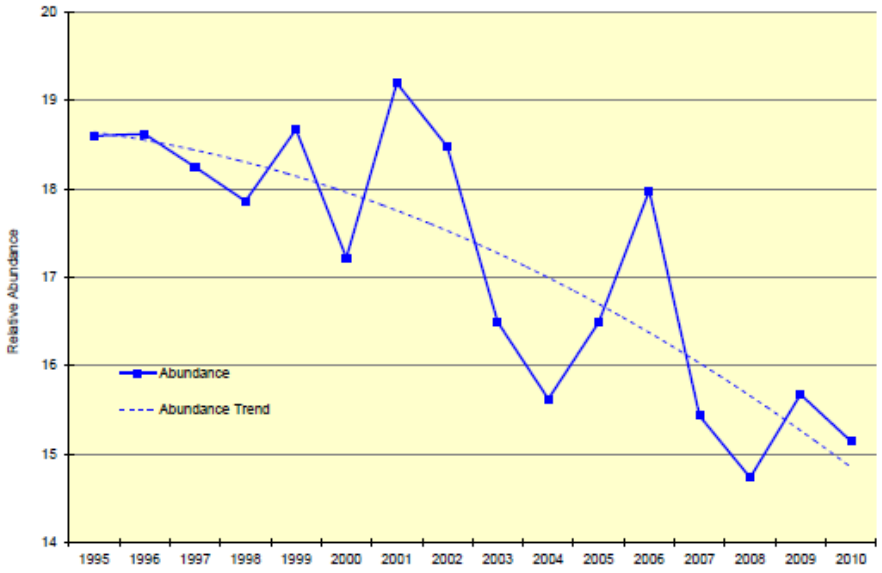
1.0 INTRODUCTION

Native plants feed the insects that are the base of the food web, and insects are especially important as food for young songbirds. The Audubon Society of Northern Virginia reports that there has been a sharp downward trend in the relative abundance of migratory songbirds across Northern Virginia during the period 1995 -2010.

Using native plants to restore the landscape or as a substitute for exotic ornamental plantings can help to slow or reverse the trend of species loss.

Figure 1: Overall Trend in Relative Abundance of Songbirds in Northern Virginia



Source: Audubon Society of Northern Virginia. Birds in Northern Virginia 1995 – 2010. March 2012.

Other advantages of native plants:

- add beauty to the landscape and preserve our natural heritage
- provide food and habitat for native wildlife and pollinators
- serve as an important genetic resource for future food crops or other plant-derived products
- decrease the amount of water, fertilizer, and herbicide needed for lawn and landscape maintenance
- require very little long-term maintenance if they are properly planted and established
- produce long root systems to hold soil in place
- protect water quality by controlling soil erosion and moderating floods and droughts

In addition, the use of only native plants in residential landscapes helps limit the chances that potentially invasive, exotic plant species will be introduced into natural areas and parks around residential areas. Many of the invasive, exotic plant species present in Northern Virginia's natural areas today were introduced as landscape plantings. Continued introduction of new exotic plants into suburban landscapes will result in many new invasive plants in the future. Some plant pests such as emerald ash borer and hemlock woolly adelgid were introduced on imported nursery stock. These pests have the potential to kill many trees in forests all across the mid-Atlantic

The Virginia Coastal Zone continues to experience rapid population growth. As a result of the important role that maintaining maximum native vegetation cover plays in mitigating some of the effects of cumulative and rapid secondary growth in the coastal zone, the VA Coastal Zone Management Program (CZMP) has provided funding for four regional Native Plant Campaigns in the Coastal Zone; Eastern Shore, Northern Neck, Northern Virginia, and Hampton Roads. In 2011, VA CZMP awarded the Northern Virginia Regional Commission a grant to research, design, and implement the pilot of a Community Based Social Marketing Campaign to promote the use of plants native to Northern Virginia in the residential landscape.

Community Based Social Marketing (CBSM) is an approach that not only creates public awareness and attempts to change attitudes but also attempts change behavior and create a shift in social norm to foster sustainable behavior. CBSM is based upon research in the social sciences that demonstrates that behavior change is most effectively achieved through initiatives delivered at the community level which focus on removing barriers to an activity while simultaneously enhancing the activities benefits. Research has shown that CBSM is more effective at developing sustainable behavior than education alone.

Community-based social marketing involves four steps:
1) Identifying the barriers and benefits to an activity,
2) Developing a strategy that utilizes "tools" that have been shown to be effective in changing behavior,
3) Piloting the strategy, and
4) Evaluating the strategy once it has been implemented across a community

The specific objectives of the Northern Virginia Regional Plant Campaign are: 1) Conduct pre-campaign research to measure knowledge and attitudes Northern Virginia residents have of native plants and also identify behavioral barriers including perceptions and lack of market availability of native plants to help inform the design of the campaign; 2) Develop a strategy with a variety of tools including a corps of volunteer Community Leaders who can engage with the wider public and help to facilitate behavior change in the community 3) Develop multi-media promotional materials for the campaign; and 4) launch a targeted pilot of the campaign.

This report satisfies the deliverable requirements set forth for FY11 Task 54, Grant # NA11NOS41901225, which are included as the following attached appendices:

A. Campaign Research
B. Community Leader Program Development and Coordination
C. Campaign Materials

These products reflect an extensive amount of work conducted by NVRC staff, as well as the input and contributions from the project's multi-partner steering committee of natural resource managers, native plant experts, and others from local governments and conservation organizations in the Northern Virginia region. Steering committee members represented the following organizations:

Virginia Coastal Zone Management Program
Virginia Department of Forestry
Virginia Native Plant Society, Prince William Wildflower Society Chapter
Virginia Native Plant Society, Potowmack Chapter
Audubon Society of Northern Virginia
Virginia Master Gardeners
Virginia Master Naturalists
Northern Virginia Soil and Water Conservation District
Virginia Cooperative Extension
Loudoun Wildlife Conservancy
Nature by Design, and
Mason Sustainability Institute.

Representatives contributed their time, expertise, resources, and support, which resulted in the final products of this grant. Meeting summaries are provided as Appendix D. The following chapters are a summary of the project deliverables and the work involved in their development.

2.0 PRODUCT #1: CAMPAIGN RESEARCH

One of the cornerstones of the four-step CBSM approach is the identification of barriers that prevent people from participating in the behavior of interest. Barriers can be both structural and psychological. Examples of structural barriers include lack of availability at local retail establishments. Psychological barriers might include lack of knowledge about native plants, unfavorable perception that native plants are weedy, or lack of motivation.

Pre-campaign research was conducted via an on-line survey of 500 Northern Virginia residents to measure knowledge, beliefs, and attitudes of native plants as well as examine current market trends and demographics of gardeners in the region. The marketing research firm, Amplitude Research, was hired to help design a survey that can be easily adapted for use in Virginia's other coastal planting regions. The survey identified the following structural and psychological barriers that may prevent people planting natives:

1. lack of information about which plant species are native
2. lack of knowledge of the interdependence between native plants and animals
3. lack of availability of native plants at retail centers
4. lack of publicly accessible demonstration sites showcasing native landscaping

The survey allowed us to answer many other questions and informed major elements of the campaign.

NOVA Native Plant Market Research Analysis

1) Who is our primary target audience that will likely be more receptive to learning more about native plants?

    - Women living in single family homes who care for plants on their property who have little or no knowledge of natives and therefore do not plant them, have some knowledge of natives but still do not plant them, have some knowledge of natives but are still unsure whether the plants they purchase are native or where to find native plants
    - Age was not a strong factor in determining interest in native plants

2) Who is our secondary target audience?

    - Landscaping company
    - Garden center staff

3) What are people's perceptions about native plants?

    - Beneficial for the environment
    - Easier to care for

4) Which plant attributes are people most interested in? which in turn will help us narrow down the plant list for the guidebook?

    - Easy to maintain
    - Adapted to local soil and climate conditions
    - Resistant to damage from insects/disease
    - Requires minimal/no fertilizer
    - Attracting birds and butterflies ranked very low
    - Color ranked very low

5) Where is our target audience most likely to shop for plants and obtain information about plants?

    - Local plant nursery/garden center
    - Hardware/home center store
    - Internet/web
    - Friends/relatives

6) What are the education needs of our target audiences?

- Even though many respondents accurately defined “native plants” most respondents viewed themselves as “not very” knowledgeable or “not at all knowledgeable”
- Messages should be tailored to the “adapted to local climate and soil conditions” and “low maintenance” attributes
- Demonstration gardens
- Interdependence between native plants and animals

7) When are people most frequently buying plants?

- April and May

8) What are barriers or reasons people may be hesitant or uninterested to buy and plant natives on their property?

- Plants aren’t identified as native at place of purchase
- No store display or special area of a garden center devoted to native plants
- Lack of commercial availability
- Lack of demonstration gardens showcasing native landscaping
- No knowledge of native plant benefits and options
- Lack of knowledge of interdependence between native plants and animals

9) What should elements of our message be? And

- Most people felt that “Low Maintenance” and “Adapted to local soil and climate conditions” was extremely important when deciding which plants to purchase
  Messaging should point to these benefits.

10) Identify where to focus time and energy, i.e. target the placement and type of promotional materials that people are most likely to respond to.

- Garden Centers
- Demonstration gardens
- Educate the public on benefits

Other major findings of the survey indicated the following about native plants.

- Homeowners living in Northern Virginia typically interpret the term “native plants” correctly, however, they do *not* typically view themselves as *knowledgeable* about native plants.

- This suggests that there is room to educate Northern Virginia residents about the many benefits of native plants.

- In fact, when presented with some brief information, many became more interested in native plants.

- Also, sizable proportions expressed interest in purchasing these types of plants.

- Many of the benefits of plants native to the area – e.g., low maintenance, adapted to local soil and climate, resistant to insects / diseases, etc. – were often considered important when selecting plants in general. This suggests that if future advertising points to these types of benefits, there is potential to increase interest.

- There does not seem to be a significant image problem currently, since Northern Virginia residents were more likely to associate positive rather than negative adjectives with native plants. The primary need is to further educate residents so that more will readily think about the many advantages of using plants that are native to the area.

- For advertising, the optimal timeframe would begin in March and carry through to at least the end of May.

- When purchasing plants, many are likely to visit hardware stores and home center stores. However, even more are likely to consider a local plant nursery / garden center. This suggests that the latter still plays an important role, even with the strong presence of stores like Home Depot and Lowes.

- Many would be interested in seeing a store display or special area of a garden center devoted to native plants.

The Amplitude Research Report that contains the survey questions and analysis of all responses is attached as **Appendix A-1**.

Following analysis of the survey, a campaign strategy (**Appendix A-2**) was developed to identify the target audience, articulate what information the campaign messaging and education should address, how to spread key messages, and how to overcome barriers. Major components of the strategy include:

- Audience
- Messaging
- Campaign Slogan
- Native Plant Image/Perception
- Barriers
- Availability
- Education Objectives
- Behavior Change Measures
- Timing of Campaign "Rollout"

Pending additional funding, the effectiveness of the campaign will be evaluated by monitoring traffic to the campaign website and monitoring sales of natives at nurseries and garden centers. In addition, a formal and replicable post-campaign survey will take place to evaluate the overall effectiveness of the campaign at changing behavior and support the future direction of the effort.

3.0 PRODUCT #2: COMMUNITY LEADER PROGRAM DEVELOPMENT AND COORDINATION

Social science research has identified a variety of tools or techniques that are effective in changing behavior. These tools include such approaches as gaining a commitment from an individual that they will try a new activity (planting a native plant), or developing community norms that encourage people to behave more sustainably (replacing lawn or ornamental exotic landscaping with native plants). The techniques are carried out at the community level and frequently involve direct personal contact. Personal contact is emphasized because social science research indicates that people are more likely to change behavior in response to direct appeals from others. Commitment strategies have also been shown to be effective when "Community Leaders" implement them. A "Community Leader" is a community resident who already engages in the behavior that is being promoted and agrees to speak to other people in their immediate community to help them get started engaging in the behavior as well.

To build capacity at the community level and capitalize on the impact of direct personal contact, a Plant NoVA Natives Campaign Community Leader Program was developed for Northern Virginia using the Eastern Shore Community Leader Program as a model. A training module was developed to educate volunteers and presented through four training workshops across the region. The workshops developed a corps of volunteer community leaders who can teach others about the benefits of native plants in the residential landscape and assist homeowners, garden clubs and the public at large with the identification of native plant species and help guide plant selection at retail establishments and community plant sales.

The target audience for the workshops was those with a strong background in gardening/landscaping or naturalist activities but would like to learn more about the ecological benefits of native plants, which species are native to our region, and how to maintain them in the typical garden landscape. Graduates of the Northern Virginia training became ambassadors for the campaign, serving as local resources and experts on the subject of native plants and the value that they provide in creating and restoring habitat throughout Northern Virginia. The workshop advertisement is attached as **Appendix B-1.**

Presentations were prepared and given by members of the steering committee including James McGlone of VA Department of Forestry and Alan Ford of Virginia Native Plant Society. Workshops were held in Manassas, Arlington, Fairfax, and Leesburg. Almost 200 people attended the free workshops across the region. Free refreshments were provided by MOM's Organic Market. Presentations from the workshops are included as **Appendix B-2.** In addition to providing information to workshop participants, we asked them to provide information to us in the form of group discussions and evaluation forms. An evaluation form and a summary of results from the evaluations are attached as **Appendix B-3.**

Due to the success of the trainings and the overwhelming commitment of support from volunteer Community Leaders, a Plant NoVA Natives Campaign Community Leader Coordinator was hired to help develop the program, and train, organize and direct a corps of approximately 200 volunteer Community Leaders in the Northern Virginia region.

4.0 PRODUCT #3 CAMPAIGN MATERIALS

The development of the campaign's multi-media promotional materials, e.g. website and plant guide, was guided by the Campaign Strategy **(Appendix A-2)** and the multi-partner steering committee. Materials developed for the campaign include the Community Leader Toolkit, Plant NoVA Natives website www.plantnovanatives.org, list of demonstration gardens, and list of native plant suppliers, and the guide book "Native Plants for Northern Virginia".

The training was complemented by the creation of "Community Leader Outreach Kit" (**Appendix E).** Contents of the toolkit include:

- Community Leader Orientation: FAQs about the Plant NoVA Natives campaign and Native Plants in Northern Virginia
- The Plant NoVA Natives logo – a trumpet honeysuckle and hummingbird sphinx moth and caterpillar
- Plant NoVA Natives website, wwwplantnovanatives.org
- Guide to Native Plants for Northern Virginia
- Tabletop display board – center panel and side panels. Panels can also be used as posters.
- Tri-fold brochures Five Easy Flowers for Sun, and Five Easy Plants for Part Shade
- Business card with key message: to ask for native plants at your plant retailer
- 1.5 inch round stickers/labels with logo
- 30-minute powerpoint presentation for Community Leaders to use in presentations with civic groups and residents such as homeowners associations
- Hanging banner for table displays or use at garden centers
- NoVA Native Plant Labels by Donna Murphy
- Report for capturing Plant NoVA Natives Information Booth
- Community Leader lapel pins/nametags

The Plant NoVA Natives Community Leader Toolkit is online via the website www.plantnovanatives.org under the Resources tab. The Plant NoVA Natives Community Leader Toolkit can also be accessed directly at https://drive.google.com/open?id=0B25LXUJQvd_6ZzZPZnJ1b3hxRnM&authuser=0

5.0 PILOT LAUNCH

Prior to implementing a community-based social marketing strategy it is piloted in a small portion of a community. Given the high cost of implementing many programs, it is essential to know that a strategy will work before it is implemented on a large scale. Conducting a pilot allows a program to be refined until it is effective. Further, a pilot allows alternative methods for carrying out a project to be tested against one another and the most cost-effective method to be determined.

The Campaign was officially pilot-launched in Fall of 2014. Steering committee members served as model Community Leaders and actively promoted the campaign at many events across the region. The following is a list of events including six plant sales where Community Leaders took part in the pilot launch of the campaign. Steering Committee member Ann Garvey also provided a report of activities conducted in Loudoun County **(Appendix B-4).**

Table 1. List of Events for the Pilot Launch of the Plant NOVA Natives Campaign

Date	Event	Participants	Description
9/13/14	Green Spring Gardens/VNPS Sale	100	Community Leaders set up an information booth at the Green Spring Gardens Plant Sale, engaged with plant shoppers and handed out copies of the plant guide and brochures
9/14/14	Morven Park Native Plant Sale	100	Community Leaders set up an information booth at the Morven Park Native Plant Sale, engaged with plant shoppers and handed out copies of the plant guide and brochures
9/20/14	Long Branch Nature Center Native Plant Sale	80	Community Leaders set up an information booth at the Long Branch Nature Center Native Plant Sale, engaged with plant shoppers and handed out copies of the plant guide and brochures
9/27/14	Northern Alexandria Native Plant Sale	100	Community Leaders set up an information booth at the Northern Alexandria Native Plant Sale, engaged with plant shoppers and handed out copies of the plant guide and brochures
9/28/14	Earth Sangha Native Plant Sale	100	Community Leaders set up an information booth at the Earth Sangha Native Plant Sale, engaged with plant shoppers and handed out copies of the plant guide and brochures
9/	Master Gardeners MGNV meeting	80	Presentation to introduce MGNV to campaign and invite partnership
Two visits	Master Gardeners MGNV Media Committee	12	Presentations to invite MGNV Media Committee to become part of the campaign
9/30/14	Master Gardeners MGNV training for incoming MG	30	Presentation of Community Leader training
8/28/14	Audubon At Home Ambassadors Training	12	Presentation of Community Leader training
8/26/14	Visit to Julie Borneman Watermark Woods	2	Meeting to discuss how Watermark Woods Nursery can be a partner in the

	Nursery		campaign
8/24/14 onwards	Outreach to Merrifield Garden Center staff and follow up	6	Meetings to discuss how Northern Virginia's largest garden center can be a partner in the campaign
9/16/14	Participation in VNPMP	25	Updated VNPMP on campaign activities
9/24/14	Follow up with South Riding Nurseries	1	Meeting to discuss how South Riding Nurseries can be a partner in the campaign
9/24/14	Follow up with Hill House Nurseries	2	Meeting to discuss how Hill House Nurseries can be a partner in the campaign
9/27/14	Follow up with Nature By Design	4	Meeting to discuss how Nature by Design can continue to be a partner in the campaign
10/11/14	Prince William County, Fall Earth Fling	100	Community Leaders set up an information booth at the Fall Earth Fling, engaged with visitors and handed out copies of the plant guide and brochures

APPENDIX A-1: CAMPAIGN RESEARCH

Northern Virginia Regional Commission

2013 Native Plants Survey

Summary Report of Findings

3/13/2013

Amplitude Research, Inc.

Study Methodology & Respondent Characteristics

- The Northern Virginia Regional Commission (NVRC) hired Amplitude Research, Inc. to conduct a survey of residents of Northern Virginia to measure knowledge, beliefs, and attitudes about "Native Plants."

- Amplitude Research worked together with NVRC personnel to develop the 2013 survey. Amplitude Research administered the study online between February 27 and March 7, 2013. In the end, 500 surveys were completed by web panelists who are *homeowners* and live in one of the areas of Virginia shown in the table below.

Which of the following best describes where you live (County or city or town)?

	Frequency	Percent
Alexandria	37	7.4%
Arlington	68	13.6%
Dumfries	4	0.8%
Fairfax (city of)	10	2.0%
Fairfax (county of)	210	42.0%
Falls Church	15	3.0%
Herndon	17	3.4%
Leesburg	10	2.0%
Loudoun	49	9.8%
Manassas	5	1.0%
Manassas Park	2	0.4%
Prince William	58	11.6%
Purcellville	1	0.2%
Vienna	14	2.8%
Total	500	100.0%

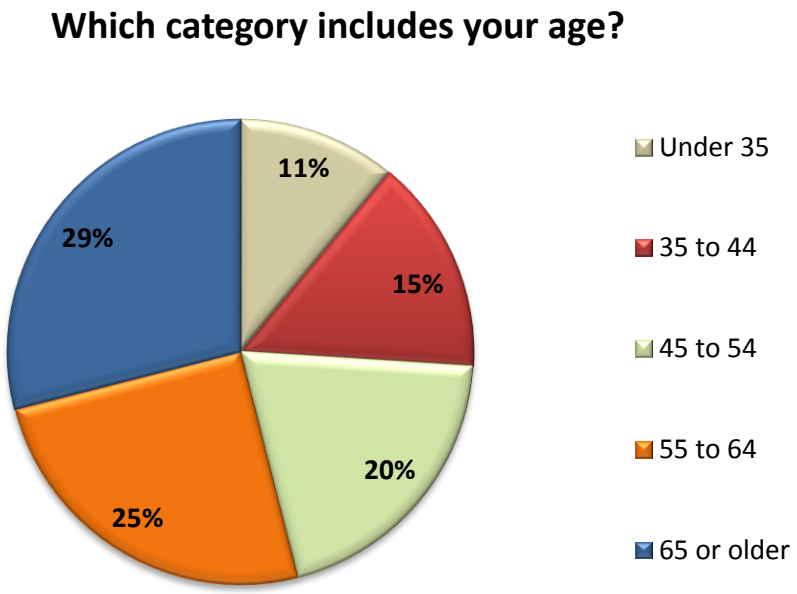
- Most of the findings presented in this summary report are based on the total sample that includes respondents from all of the areas above combined. However, when results are "broken out" by area, the specific areas listed above are grouped together into larger areas so that each larger area used for analysis has a reasonable number of respondents.

  - Residents of Purcellville, Leesburg, and Loudoun County can be combined into a single category and labeled as "**Loudoun**," since Purcellville and Leesburg lie within Loudoun County.

- Another category for analysis purposes can be labeled "**Prince William Area**," which includes Prince William County, Dumfries, Manassas, and Manassas Park. Dumfries lies within Prince William County. Although Manassas and Manassas Park are distinct geographic entities, they are circumscribed by Prince William County.

- The City of Fairfax, Falls Church, Herndon, and Vienna can be combined with Fairfax County to create a category that can be labeled "**Fairfax Inclusive**," since these cities and towns lie within the Fairfax County area. Although the City of Fairfax and City of Falls Church are distinct areas, their location falls within the larger area circumscribed by Fairfax County.

- The chart below shows the age distribution of the survey respondents. Because the survey focused on *homeowners*, the proportions in the older age categories are higher than would have been the case if renters had also been included in the survey.

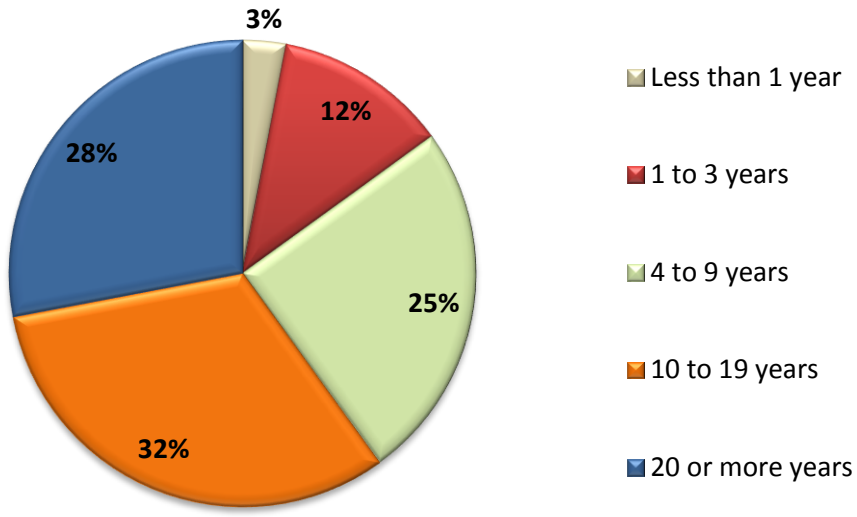


- The survey respondents were split between males (46%) and females (54%), while slightly more than three-fourths (77%) were married, and slightly more than one-in-five (22%) have one or more children under the age of 18 living in their household.

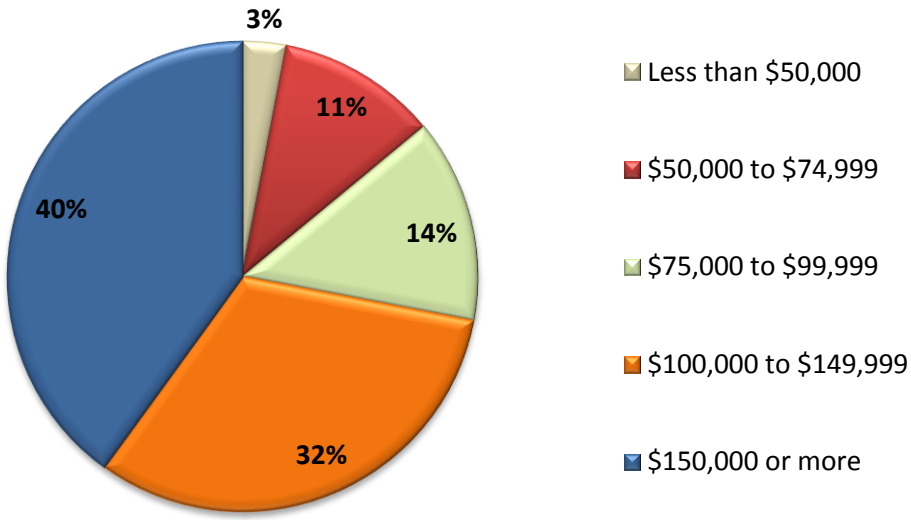
- The first chart on the next page shows how long respondents have lived in their current residence. Some had been living in their current homes for a fairly short period of time (e.g., less than one year – 3%, one to three years – 12%), while the majority had lived in their current home for at least 10 years.

- The second chart on the next page shows the income distribution of the survey respondents. (This excludes respondents who selected "Prefer not to answer.") For example, four-in-ten (40%) reported household income of $150,000 or more.

For how many years have you lived in your current residence?



What is your total annual household income before taxes?



- The proportions in the top two income categories are high relative to what would be expected if this had been a nationwide survey. However, according to U.S. Census data, each of the areas of Northern Virginia covered in this study had a significantly higher median income than the national average. Also, including only homeowners in the survey led to higher proportions in the top income categories than would have been the case if renters were included in the survey.

- In terms of the types of homes owned, 65% reported living in a single family home, 20% live in a townhouse, and 13% live in a condominium.

- In general, as suggested by the above points, many different demographic questions were asked in the survey. In selected parts of this report, results are broken out by demographic subgroups. However, it would not be beneficial in this summary report to show results for all questions broken out by demographic subgroups. Given the number of demographic questions, this would overwhelm any reader. For this reason, in addition to this summary report, a separate "Supplemental" Excel file of "Cross-tabulations" is being provided. This shows the results for each question cross-tabulated by demographic subgroups. Thus, if there is interest in examining the results for a particular demographic subgroup, this can be found in the supplemental file.

Sampling Variability

While examining the survey findings, it is helpful to keep in mind that the results are based on a sample and are therefore subject to sampling variability, often referred to as "sampling error." The degree of uncertainty for an estimate (e.g., a particular percentage from the survey) arising from sampling variability is represented through the use of a margin of error. A sampling margin of error at the "95% confidence level" can be interpreted as providing a 95% probability that the interval created by the estimate plus and minus the margin of error contains the true value. (The "true" value would be known only if everyone in the target market was surveyed rather than just a sample.) In addition to sampling variability, results may be subject to various sources of non-sampling error (e.g., non-response bias, respondent misinterpretation of question wording, etc.). The degree of non-sampling error is not represented by the sampling margin of error and is usually unknown.

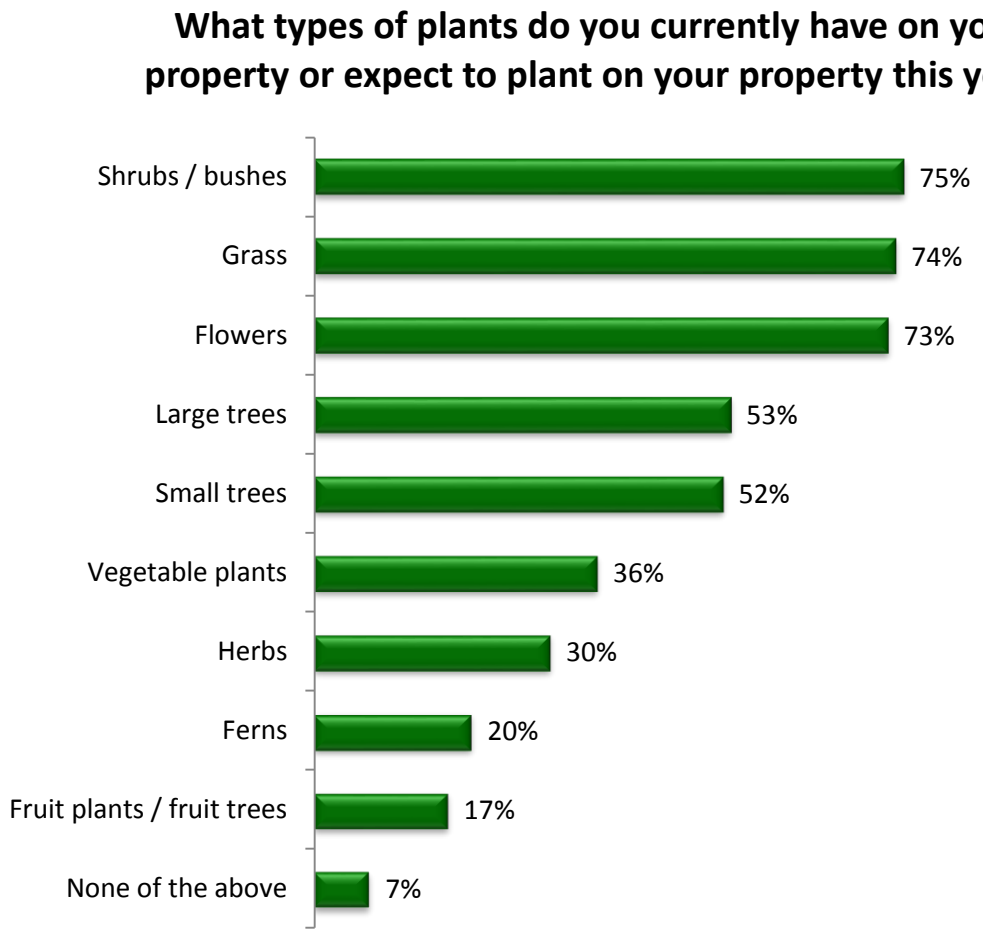
For a "sample size" of 500 survey respondents, the "maximum" margin of sampling error for percentages from the survey is +/- 4.4 percentage points at the 95% confidence level. Here, "maximum" refers to the margin of error being highest for proportions from the survey near 50%, while the margin of error declines as percentages get further from 50%. For example, given the same sample size of 500 respondents, a result from the survey near 10% or 90% would have a margin of sampling error of +/- 2.6 percentage points.

The margin of sampling error increases as the sample size decreases. Thus, when a question is asked of only a subset of the total sample, the associated margin of sampling error is larger than that quoted above. Also, even if a question is asked of all respondents, when examining results for a particular subgroup, the margin of sampling error depends on the number of respondents in that subgroup. For example, the "maximum" margin of sampling error would be +/- 9.8 percentage points at the "95% confidence level" when based on a subgroup of 100 survey respondents. In some parts of this report, results are shown for subgroups that include a fairly small number of respondents, and caution is recommended when thinking about these findings.

This suggests that results for different subgroups can be considered "similar" when the differences are small (i.e., small enough to be within the range of sampling error).

Planting & Caring for Plants

- Before covering the questions in the survey about "Native Plants," this section summarizes current usage and behavior related to plants in general. The chart below shows how often respondents reported having various types of plants on their property. For example, three-fourths (75%) reported having shrubs / bushes.



- Although a high proportion (74%) reported having grass on their property, one might have expected this proportion to be higher, since the survey focused on homeowners. However, not all homeowners live in a single family home, which is often expected to have a lawn. As shown in the table on the next page, those who live in a condo were much less likely to have each type of plant on their property.

- When focusing only on those living in a single family home, 90% reported having grass on their property. In contrast, among those living in a condo, only 19% reported having grass on their property.

Plants on Property	Have Single Family Home	Condo	Townhouse / Other
Shrubs / bushes	88%	21%	71%
Grass	90%	19%	63%
Flowers	83%	33%	67%
Large trees	71%	13%	23%
Small trees	63%	10%	47%
Vegetable plants	43%	15%	28%
Herbs	37%	15%	21%
Ferns	27%	3%	8%
Fruit plants / fruit trees	23%	4%	9%
None of the above	0%	46%	5%
N = number of respondents	*324*	*67*	*109*

- The results varied somewhat by area, as shown in the table below. For example, residents from Alexandria and Arlington were less likely than residents from other areas to report having grass on their property.

Plants on Property	Alexandria	Arlington	Fairfax Inclusive	Loudoun	Prince William Area
Shrubs / bushes	68%	54%	78%	83%	83%
Grass	59%	50%	81%	82%	74%
Flowers	81%	65%	74%	72%	72%
Large trees	38%	40%	57%	55%	54%
Small trees	49%	31%	58%	62%	43%
Vegetable plants	49%	26%	35%	40%	38%
Herbs	43%	34%	30%	25%	25%
Ferns	19%	21%	22%	5%	23%
Fruit plants / fruit trees	19%	15%	18%	18%	14%
None of the above	3%	21%	6%	7%	3%
N = number of respondents	*37*	*68*	*266*	*60*	*69*

- However, variation by area can largely be explained by differences in the mix of housing types. As shown in the table below, residents of Alexandria and Arlington were less likely than residents from other areas to live in a single family home. Among the respondents to this survey, townhouses were fairly common among residents of Alexandria, and condos were fairly common among residents of Arlington.

Type of Home	**Alexandria**	**Arlington**	**Fairfax Inclusive**	**Loudoun**	**Prince William Area**
Single family home	46%	44%	69%	78%	67%
Condo	14%	44%	9%	10%	1%
Townhouse / other	40%	12%	22%	12%	32%
N = number of respondents	*37*	*68*	*266*	*60*	*69*

- It is one thing for plants to be growing on a homeowner's property, but this does not always mean that the homeowner is involved in selecting plants. For this reason, survey respondents were asked **"Who influences and/or decides what types of plants are planted on the property where you live?"** and the results were as follows.

  - 69% selected "I do"
  - 39% selected "Someone else in the household" (could be in addition to "I do")
  - 21% selected "My Homeowners Association has some restrictions / guidelines"
  - 18% selected "Plant nursery / gardening center staff recommendations"
  - 9% selected "Landscaping company makes recommendations / decisions"

- For example, slightly more than two-thirds (69%) of the survey respondents reported that they were personally involved in the decision of which types of plants are planted on their property.

- As might be expected, the proportion reporting that they were personally involved in selecting plants for their property was highest among those living in a single family home (75%), and lowest among those living in a condo (34%). Among those living in a townhouse (or other type of property), 74% were personally involved.

- A related question asked of the survey respondents was **"<u>Who cares for the plants (including trees, shrubs / bushes, flowers, etc.) on the property where you live?</u>"** and the results are below.

    - 72% selected "I do"
    - 38% selected "Someone else in the household"
    - 18% selected "Landscaping company"

- Thus, slightly more than two-thirds (72%) of the survey respondents reported that they were personally involved in caring for the plants on their property.

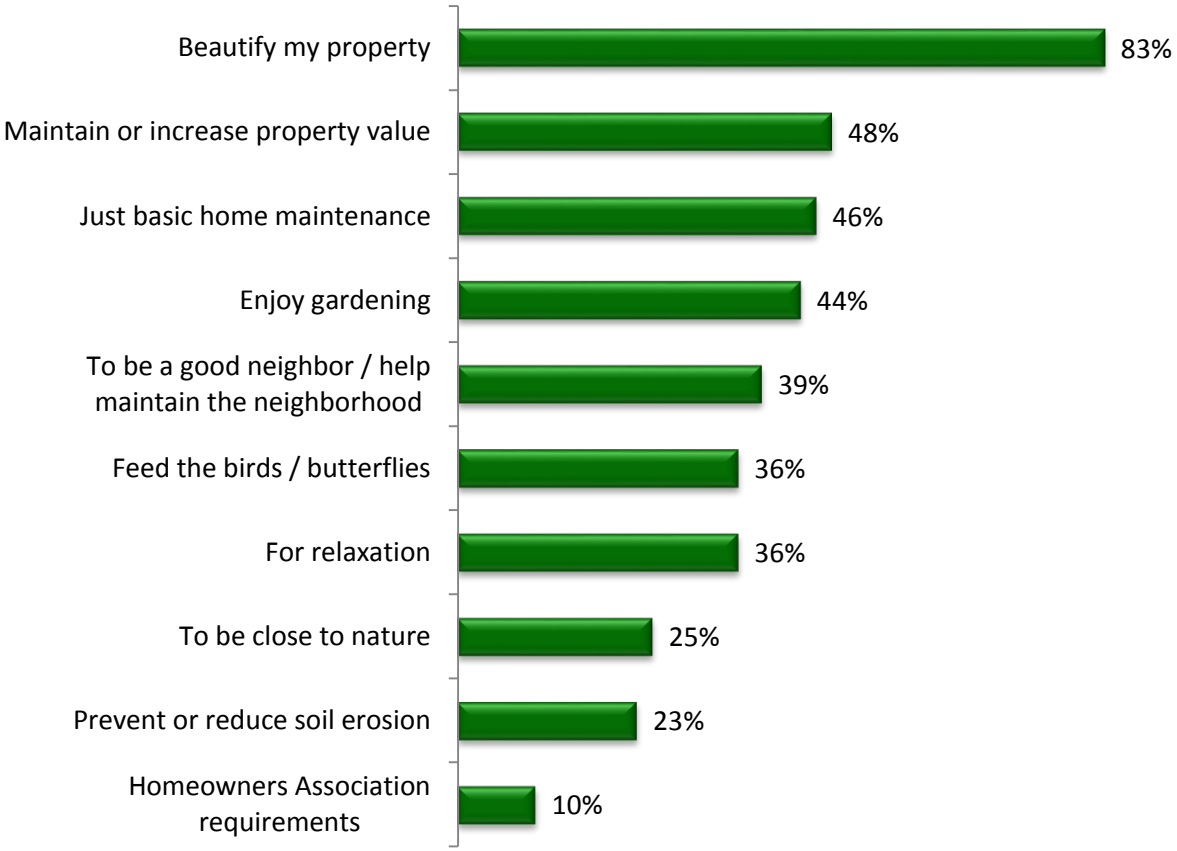
- Not surprisingly, condo owners were much less likely to report caring for the plants on their property (37% among condo owners vs. 78% of those who own a single family home and 77% of those who own a townhouse or other type of property). However, it is also interesting that more than one-third of condo owners reported caring for plants on their property.

- Although not everyone included in the survey was personally involved in selecting and/or caring for plants on their property, this is not a problem in terms of the study design, since some may become interested in plants in the future. The primary goal of the study was to assess current knowledge and *future* interest in "Native Plants" after hearing about some of the potential benefits. Also, most (91%) of the survey respondents indicated that either they or someone else in their household was involved in the selection or care of plants on their property. Moreover, even among those who currently rely entirely on a landscaping company to select and care for their plants, it is possible that future advertising about "Native Plants" could encourage them to become more interested in the types of plants selected by their landscaping company.

- Before moving to the next section, the chart on the next page examines motivations for planting or caring for plants. Of particular interest, more than one-third (36%) selected "Feed the birds / butterflies" as a motivation for planting. This is interesting because "Native Plants" would be more beneficial for this purpose than other types of plants. Thus, a key advantage of "Native Plants" has potential to resonate with many homeowners.

    - The question in the chart on the next page was asked of those who were personally involved or who indicated that someone else in their household was personally involved in selecting and/or caring for the plants on their property.

Which of the following are reasons you or others in your household plant and/or care for plants on your property?



Understanding of Native Plants

- Early in the survey, before any information was presented, respondents were asked to describe "**In their own words**" what "**Native Plants**" are and what impact or particular characteristics they have. Later, the written comments were read by a researcher and "coded" according to commonly expressed themes. Below are the types of responses (after "coding") that emerged frequently:

    - Native / indigenous to the local area / from the local area / not imported (81%)
    - Grow naturally / wild (16%)
    - Adapted to the local climate / wildlife (14%)
    - Thrive locally (9%)
    - Here before civilization / colonization (6%)
    - Non-invasive (4%)
    - Important for local wildlife / environment (3%)
    - Require less maintenance / care (3%)
    - Various other responses (4%)
    - Don't know / have no idea (5%)

- For example, eight-in-ten (81%) wrote that these plants are native to the local area or "Indigenous" to the area or from the area or not imported. Thus, respondents typically interpreted the term "Native Plants" correctly.

- Although it may be easy to describe "Native Plants" as "Native to the area," since they are deriving their understanding directly from the term, it is interesting that many respondents wrote that these plants were "Indigenous" and/or that they were "Not imported."

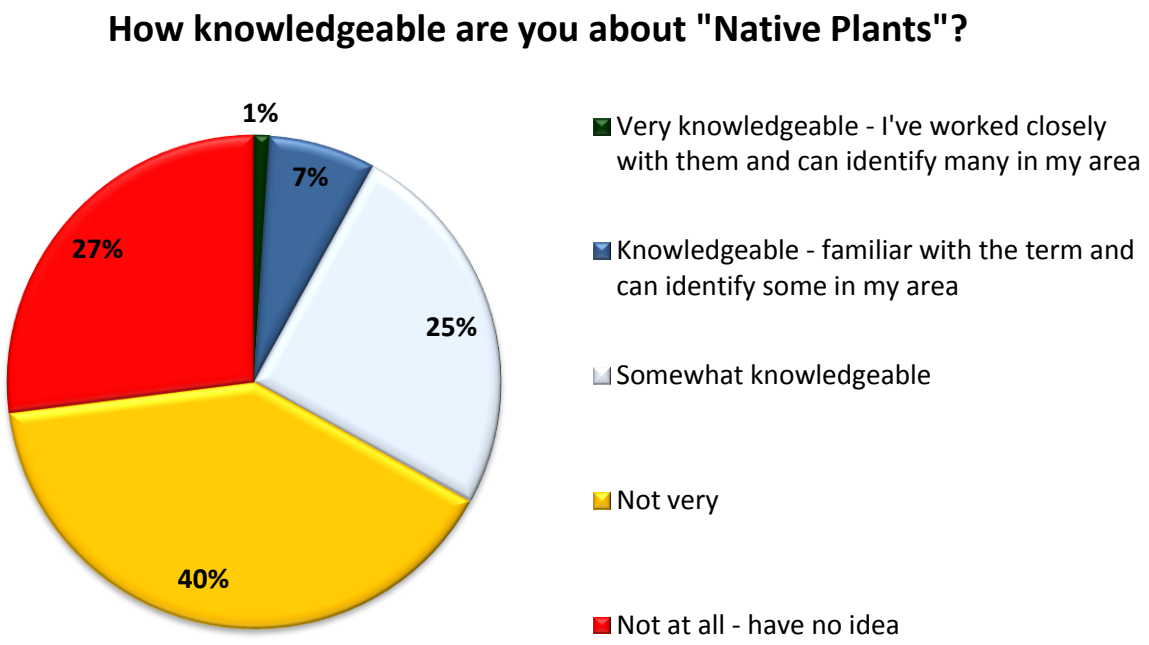
- Some described "Native Plants" as growing naturally or "wild" in the local area (16% of the respondents, as shown in the list above, made a comment like this). Although this is similar to saying that the plants are indigenous to the area, this type of comment was not exactly the same and therefore seemed interesting enough to "code" as a distinct response. Also, some respondents mentioned both reasons. For example, one respondent said "They are indigenous to the area where they are planted. They grow 'wild' and they have not been imported from another ecosystem." Another respondent said "Plants that are native to the region, grow naturally, and are good for local wildlife." (In general, it is worth noting that some respondents mentioned multiple characteristics. Thus, the percentages in the list above add to more than 100%.)

- Some respondents mentioned advantages of "Native Plants," such as being well adapted to the local climate and wildlife, able to thrive in the local area, non-invasive, important for the local wildlife / environment, and requiring less maintenance. Although these "benefits" or

"advantages" were not mentioned by the majority, it is still interesting that these came to the minds of a number of respondents.

- The question covered above shows what emerges "Top of mind" for consumers when hearing the term "Native Plants." Later questions in the survey addressed specific issues, but the question above was designed to capture thoughts before exposure to further information.

- The chart below shows how respondents assessed their own knowledge about "Native Plants." Although the results above show that many correctly interpreted the term, and some described benefits, the results below show that only a very small percentage considered themselves "Very knowledgeable" about "Native Plants," and a small proportion gave themselves a rating of "Knowledgeable."

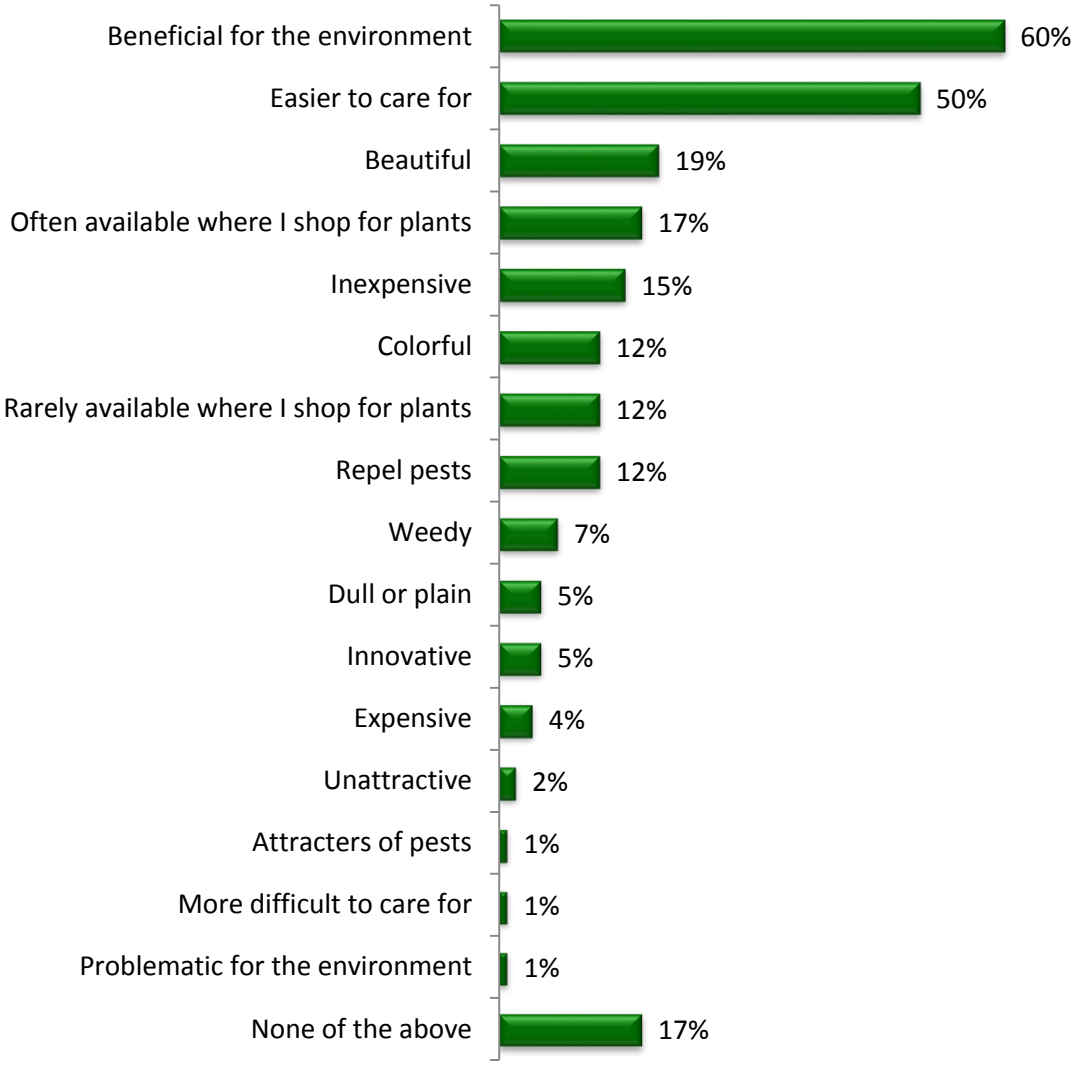


- One-fourth felt they were "Somewhat knowledgeable," but higher proportions felt they were "Not very knowledgeable" or "Not at all knowledgeable."

- In a separate question, 40% indicated that they have read about or heard people discussing "Native Plants" in the past 12 months. This suggests that the term has recently caught the attention of some Northern Virginia homeowners, but this has not typically translated into people feeling "Very knowledgeable" about "Native Plants."

- The chart on the next page shows the results when respondents were asked to select adjectives from a list that they felt applied to "Native Plants." Interestingly, 60% felt that these plants would be beneficial to the environment.

Which of the following adjectives, if any, do you feel describe "Native Plants"?



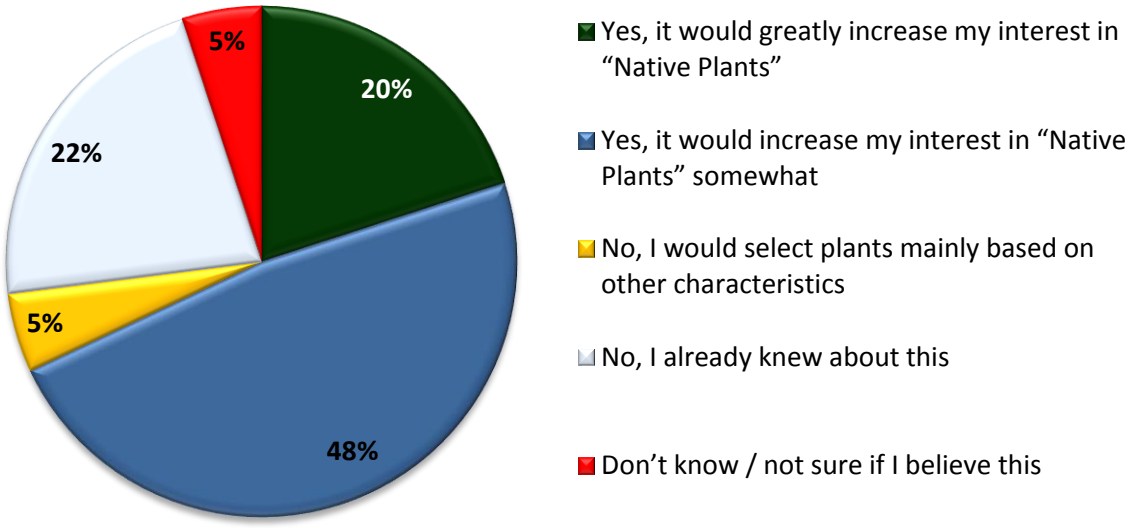
- Half of the respondents felt that "Native Plants" would be easier to care for than other types of plants, while only 1% thought that they would be more difficult to care for.
- As a general rule, positive adjectives (e.g., beautiful, inexpensive, colorful, repel pests, etc.) were selected more often than negative adjectives (e.g., unattractive, dull or plain, expensive, attracters of pests).
- These results suggest that if future advertising campaigns discussed the types of benefits shown above, then consumers would often perceive these messages as credible.
- For the issue of retail availability, however, the results were more mixed. Although 17% felt that these plants were often available where they shop, a sizable proportion (12%) had the opposite view – i.e., they felt that they were rarely available where they shop for plants.

Future Interest in Native Plants

- After asking respondents about how they understood and perceived "Native Plants," some educational information was provided. The chart below shows how respondents reacted when presented with a brief description of "Native Plants" (e.g., require less water / fertilizer, insect / disease resistant, good for wildlife). One-in-five (20%) felt this information greatly increased their interest, while another 48% felt it would increase their interest somewhat.

Imagine you were told that "Native Plants" require less water and fertilizer than other plants because they are better adapted to local soil and climate conditions and are more resistant to insects and disease. Also, "Native Plants" can be beneficial for local birds, butterflies, and other wildlife.

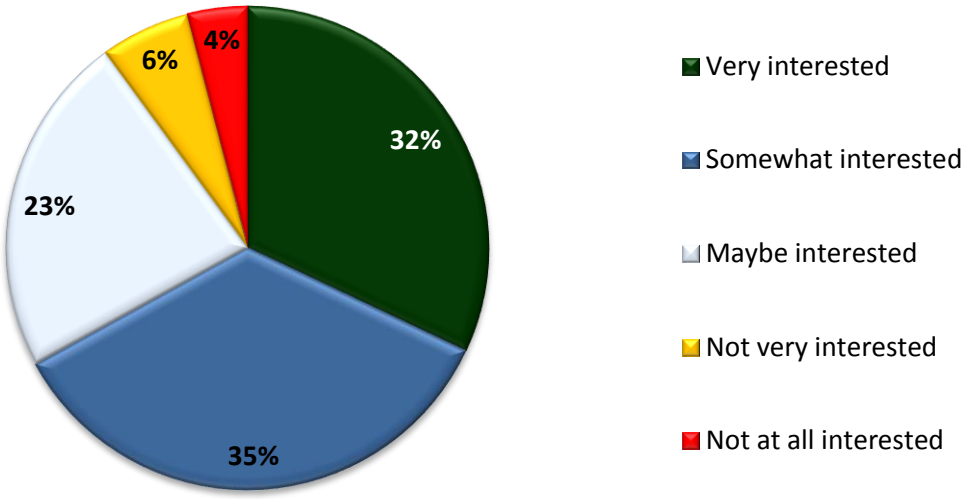
Would hearing this change your interest in "Native Plants"?



- Although there were some who did not become more interested, many of these respondents indicated that their interest did not increase only because they already knew about this information.

- While the above question measures possible *change* in interest after exposure to the information presented, the question covered on the next page addresses interest in purchasing plants clearly identified as being native to Northern Virginia. For example, approximately one-third (32%) would be "Very interested" in purchasing these types of plants, and another 35% would be "Somewhat interested." (Importantly, in the survey, the question covered on the next page was asked after the question in the chart above. Thus, purchase interest on the next page is based on being educated with the information presented in the question above.)

How interested would you be in purchasing plants clearly identified as "Native Plants" for Northern Virginia?



- The chart above shows the results for the total sample, but readers may be interested in examining whether results vary by area. The table below shows that the proportion "Very interested" ranged from a low of 19% in Alexandria to a high of 38% in Loudoun. This difference between 38% and 19% is "statistically significant" at the 95% confidence level. However, the differences between these two areas and other areas were not large enough to be statistically significant. At the same time, while Alexandria had a lower proportion "Very interested," this area had a relatively high proportion "Somewhat interested." Thus, although there is some variation in the results by area, we would interpret the results below as showing that there is substantial interest across the Northern Virginia region.

Interest Purchasing Northern Virginia Native Plants	**Alexandria**	**Arlington**	**Fairfax Inclusive**	**Loudoun**	**Prince William Area**
Very interested	19%	25%	35%	38%	33%
Somewhat interested	54%	35%	37%	22%	31%
Maybe interested	21%	25%	19%	28%	29%
Not very interested	3%	10%	6%	7%	4%
Not at all interested	3%	5%	3%	5%	3%
N = number of respondents	*37*	*68*	*266*	*60*	*69*

- As shown in the next table, women were significantly more likely than men to be "Very interested" in purchasing plants clearly identified as "Native Plants" for Northern Virginia. (By "significantly more likely" we mean that the difference between 25% vs. 39% in the table below is "statistically significant.")

Interest Purchasing Northern Virginia Native Plants	**Male**	**Female**	**Care for Plants on Property**	**Do Not Personally**
Very interested	25%	39%	39%	16%
Somewhat interested	39%	31%	36%	32%
Maybe interested	26%	19%	20%	29%
Not very interested	6%	7%	4%	14%
Not at all interested	4%	4%	1%	9%
N = number of respondents	*232*	*268*	*361*	*139*

- At the same time, respondents who care for the plants on their property were significantly more likely to be "Very interested" than those who do not personally care for plants on their property (e.g., someone else in their household or a landscaping company may do so).

- Although the table above shows differences by gender and whether or not the respondent cares for plants, this is *not* meant to suggest that women are more likely than men to care for plants on their property. In fact, 74% of the male respondents and 71% of the female respondents reported caring for the plants on their property. Thus, gender is a separate factor when explaining who is more likely to be interested.

    - To explore this further, a separate analysis was run: Among men who care for plants on their property, 32% were "Very interested." Among women who care for plants on their property, 45% were "Very interested." In contrast, among those who do *not* care for plants on their property, the proportion "Very interested" was only 7% among men vs. 23% among women.

- The table on the next page shows that those living in a single family home were significantly more likely than those in a condo or townhouse to be "Very interested" in purchasing plants clearly identified as "Native Plants" for Northern Virginia.

- However, it is also interesting that sizable proportions of those living in a condo or townhouse were either "Very interested" or "Somewhat interested."

Interest Purchasing Northern Virginia Native Plants	Have Single Family Home	Condo	Townhouse / Other
Very interested	39%	13%	25%
Somewhat interested	37%	25%	37%
Maybe interested	19%	34%	26%
Not very interested	4%	17%	7%
Not at all interested	1%	11%	5%
N = number of respondents	*324*	*67*	*109*

- In the table below, the age group with the highest proportion "Very interested" was age 45 to 54. However, some caution is needed here, since the overall relationship between age and interest was not quite strong enough to be statistically significant at the 95% confidence level.

Interest Purchasing Northern Virginia Native Plants	Under Age 35	35 to 44	45 to 54	55 to 64	65 +
Very interested	33%	28%	40%	26%	35%
Somewhat interested	22%	39%	36%	37%	37%
Maybe interested	29%	17%	19%	26%	22%
Not very interested	9%	13%	2%	8%	3%
Not at all interested	7%	3%	3%	3%	3%
N = number of respondents	*55*	*75*	*100*	*123*	*147*

- In the first table on the next page, the proportion "Very interested" did not vary significantly based on the length of time lived in their current residence.

- The second table on the next page shows the results broken out by household income, and those with income of $150,000 or more were more likely that those with lower income to be "Very interested" in purchasing plants clearly identified as "Native Plants" for Northern Virginia. At the same time, though, sizable proportions among lower income categories were "Very interested."

Interest Purchasing Northern Virginia Native Plants	**3 Years or Less**	**4 to 9 Years**	**10 to 19 Years**	**20 or More Years**
Very interested	29%	33%	32%	34%
Somewhat interested	32%	30%	38%	39%
Maybe interested	19%	27%	21%	22%
Not very interested	12%	8%	6%	2%
Not at all interested	8%	2%	3%	3%
N = number of respondents	*77*	*124*	*157*	*142*

Interest Purchasing Northern Virginia Native Plants	**Income < $75K**	**$75 – 99K**	**$100 – 149K**	**$150K +**
Very interested	29%	31%	26%	38%
Somewhat interested	38%	29%	37%	35%
Maybe interested	23%	29%	24%	17%
Not very interested	5%	8%	7%	7%
Not at all interested	5%	3%	6%	3%
N = number of respondents	*58*	*62*	*136*	*175*

- The above results focus on interest in "Purchasing plants clearly identified as 'Native Plants' for Northern Virginia," but this was actually one of five items that respondents were asked to rate in terms of interest. The table on the next page shows results for all five items. For example, 33% were "Very interested" in seeing a store display or special area of a garden center devoted to "Native Plants."

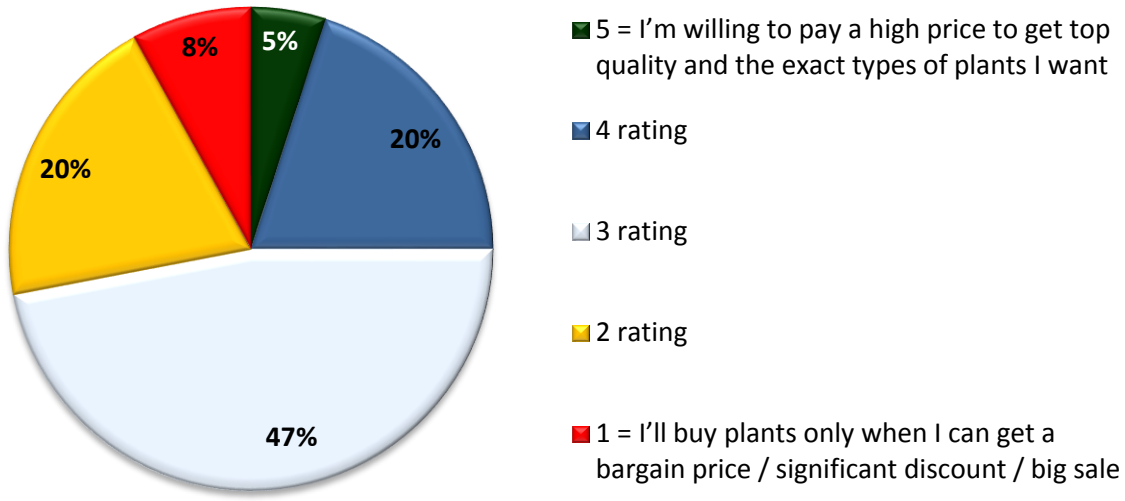
- A "Native Plants" demonstration garden and public advertising about "Native Plants" each earned a "Very interested" rating from 19% of the respondents.

	Very Interested	Somewhat Interested	Maybe Interested	Not Very Interested	Not At All Interested
Seeing a store display or special area of a garden center devoted to “Native Plants”	33%	36%	21%	6%	4%
Purchasing plants clearly identified as “Native Plants” for Northern Virginia	32%	35%	23%	6%	4%
Reading an article explaining “Native Plants” benefits and options	25%	36%	25%	9%	5%
Seeing or hearing a public advertisement explaining “Native Plants” benefits and options	19%	32%	29%	14%	6%
Visiting a “Native Plants” demonstration garden	19%	31%	29%	15%	6%

Plant Shopping Behavior

- Separately from interest in purchasing "Native Plants" (as covered in the previous section), some are more willing to pay a high price for quality, while some insist on bargains, and many are somewhere in between. The chart below helps to classify how common each tendency exists among Northern Virginia homeowners.

Using a five-point scale, which rating below best describes how you would decide between pricing and quality when purchasing plants?



- For example, 5% gave a rating of 5 = "I'm willing to pay a high price to get top quality and the exact types of plants I want." On the other end of the five-point scale, 8% gave a rating of 1 = "I'll buy plants only when I can get a bargain price / significant discount / big sale." These results suggest that there are some pure bargain shoppers and there are some who have a strong tendency to pay more for top quality.

- However, it was more common for respondents to choose a rating somewhere between the top and bottom of the scale. Interestingly, the same proportion gave a 2 rating as gave a 4 rating, suggesting a split between those who lean more toward bargains vs. those who lean more toward paying for better quality.

- At the same time, nearly half (47%) either saw themselves in the middle or could not decide which end of the scale they favored, as they chose a 3 rating.

- One might expect the results for this question to vary by household income, and this was true to some extent, as shown below. Those with household income of $150,000 or more were more likely to give a 4 rating compared to those in lower income categories. A 4 rating reflects an attitude closer to being willing to pay more for quality. However, a minority gave a 5 rating, regardless of their income level.

Bargain vs. Pay More for Quality	**Income < $75K**	**$75 – 99K**	**$100 – 149K**	**$150K +**
5 = willing to pay high price for quality	5%	7%	6%	6%
4 rating	9%	8%	15%	30%
3 rating	48%	53%	46%	48%
2 rating	29%	21%	25%	10%
1 = only a bargain price / big sale	9%	11%	8%	6%
N = number of respondents	*58*	*62*	*136*	*175*

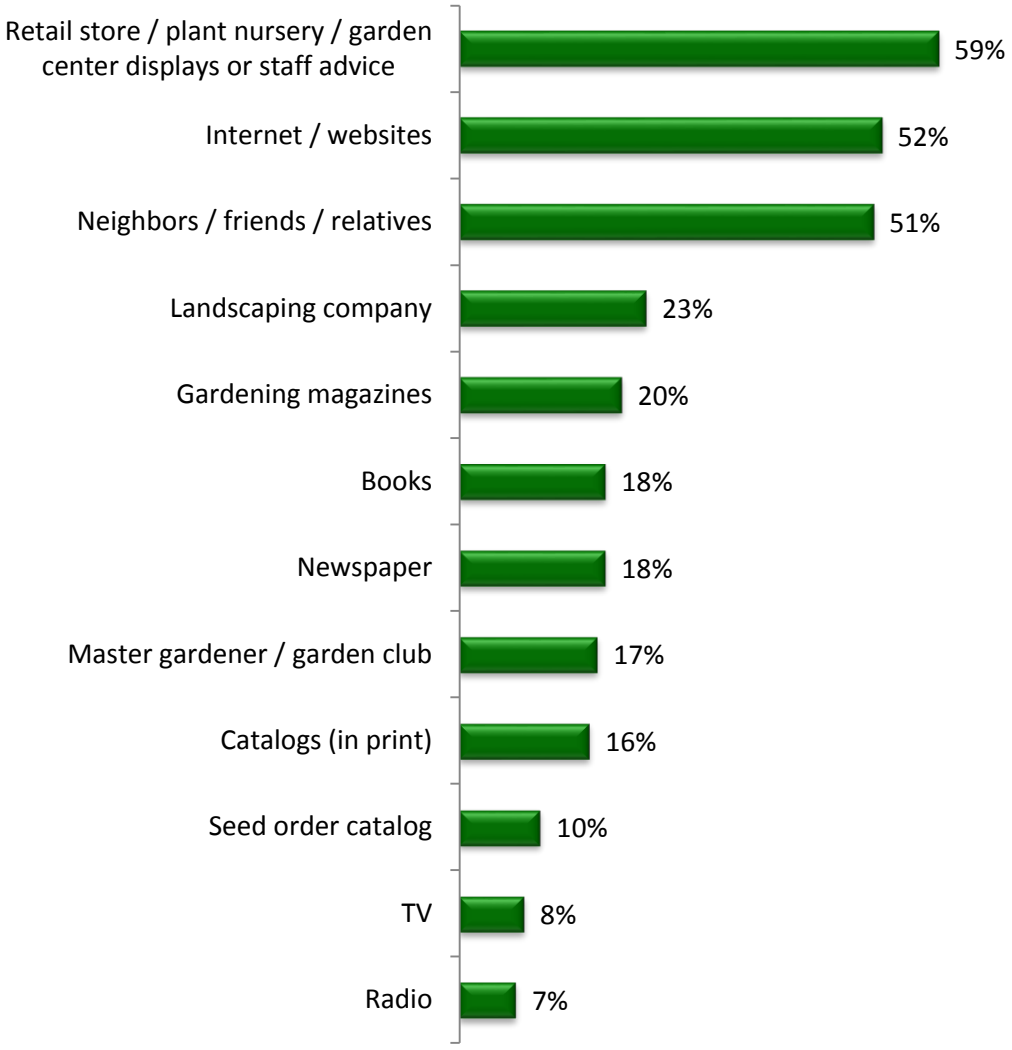
- Similarly, those who *insist* on bargains (i.e., gave a rating of 1) were in the minority across all income categories.

- When it comes to selecting plants, the chart on the next page shows the types of sources that could be used to help decide what plants to purchase and/or how to care for plants. More than half (59%) would expect to refer to the displays and/or talk to staff at a store or nursery or garden center.

- At the same time, slightly more than half would use the Internet and/or talk to friends and relatives to help them decide. In a follow-up question, respondents were asked to specify which websites they would visit if using the Internet. Most of the respondents who entered an Internet-related response indicated that they would use Google to search for information, while a few mentioned Yahoo.

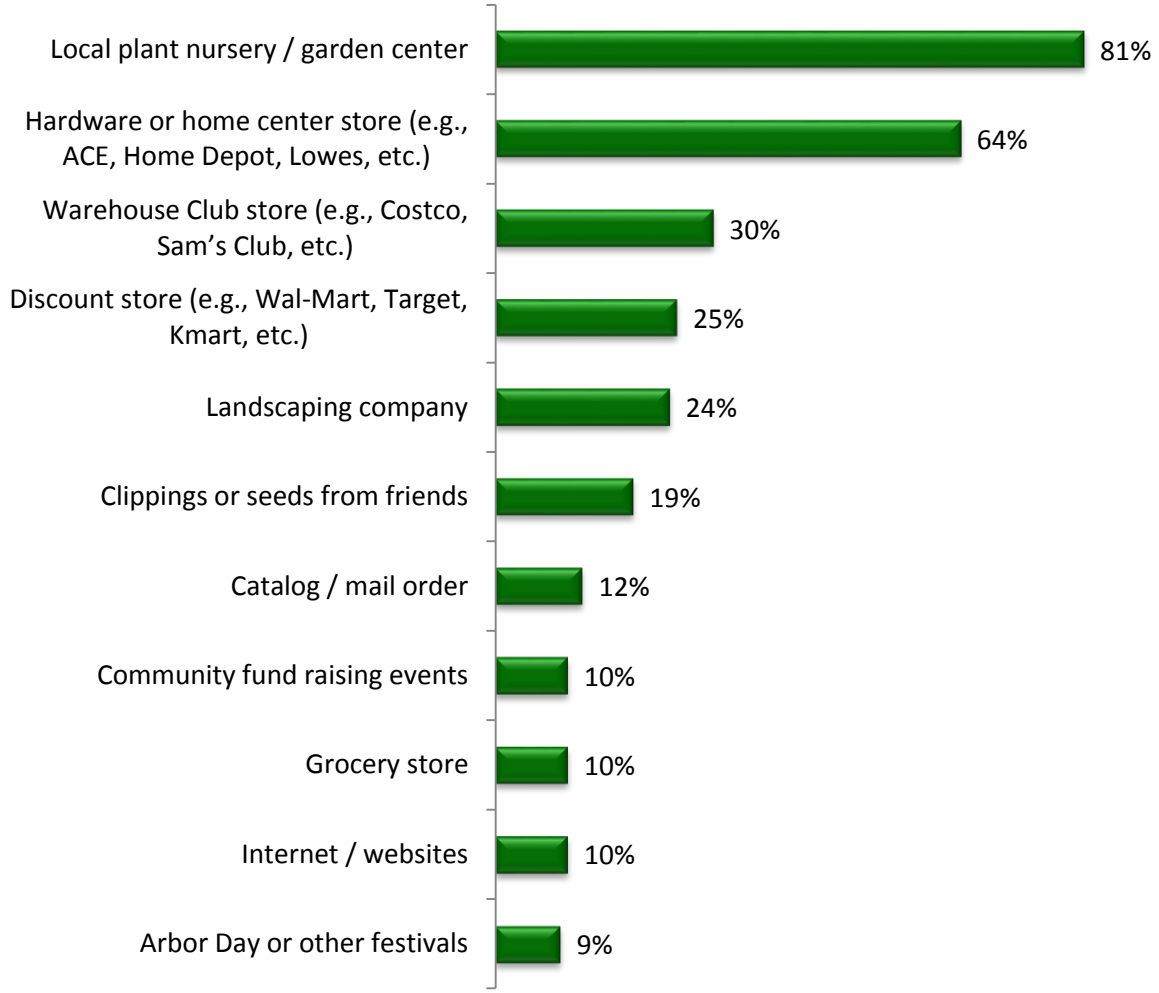
- One-in-five would be likely to consult gardening magazines, and one-in-ten would be likely to consult a seed order catalog. When asked for specific names, the most common responses were Better Homes & Gardens, Burpee, and Southern Living. A number of names were written in by two or just a few respondents, such as American Horticultural Society, Birds & Blooms, Breck's, Fine Garden, Garden Design, Martha Stewart Living, Merrifield, Park Seed, and Spring Hill. (Because these names were written in by a small number of respondents, we cannot be sure if these are commonly used sources in the general population or not. However, we are listing the names here in case the reader would like to have a list of publications to explore further.)

What sources would you or others in your household be likely to use to help decide what plants to purchase and/or how to care for your plants?



- While the above chart covers sources used to help decide which plants to consider and how to care for them, the chart on the next page shows where respondents would expect to obtain plants if they were to add or change plants on their property. Interestingly, a very high proportion (81%) felt that they would be likely to shop at a local plant nursery / garden center.

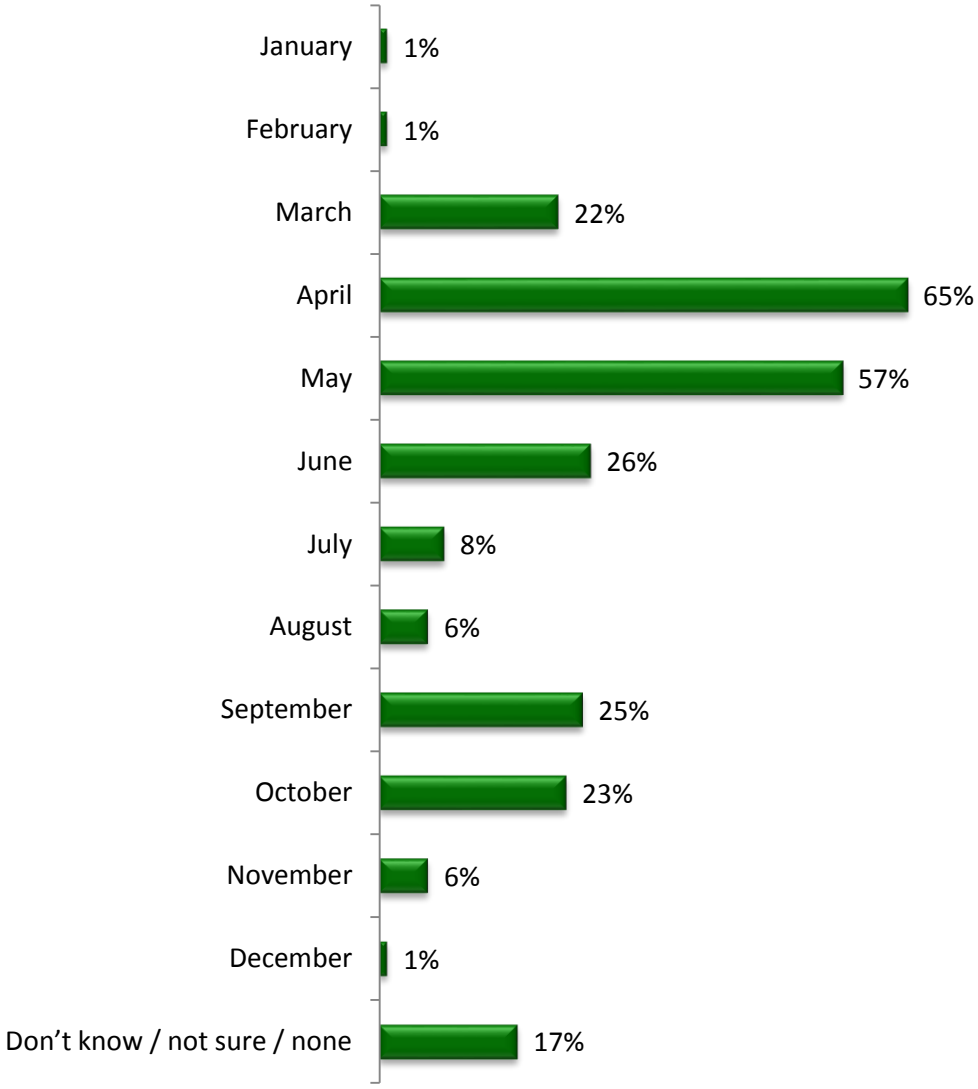
If you were to add or change plants on your property, where would you or others in your household be likely to purchase / obtain plants?



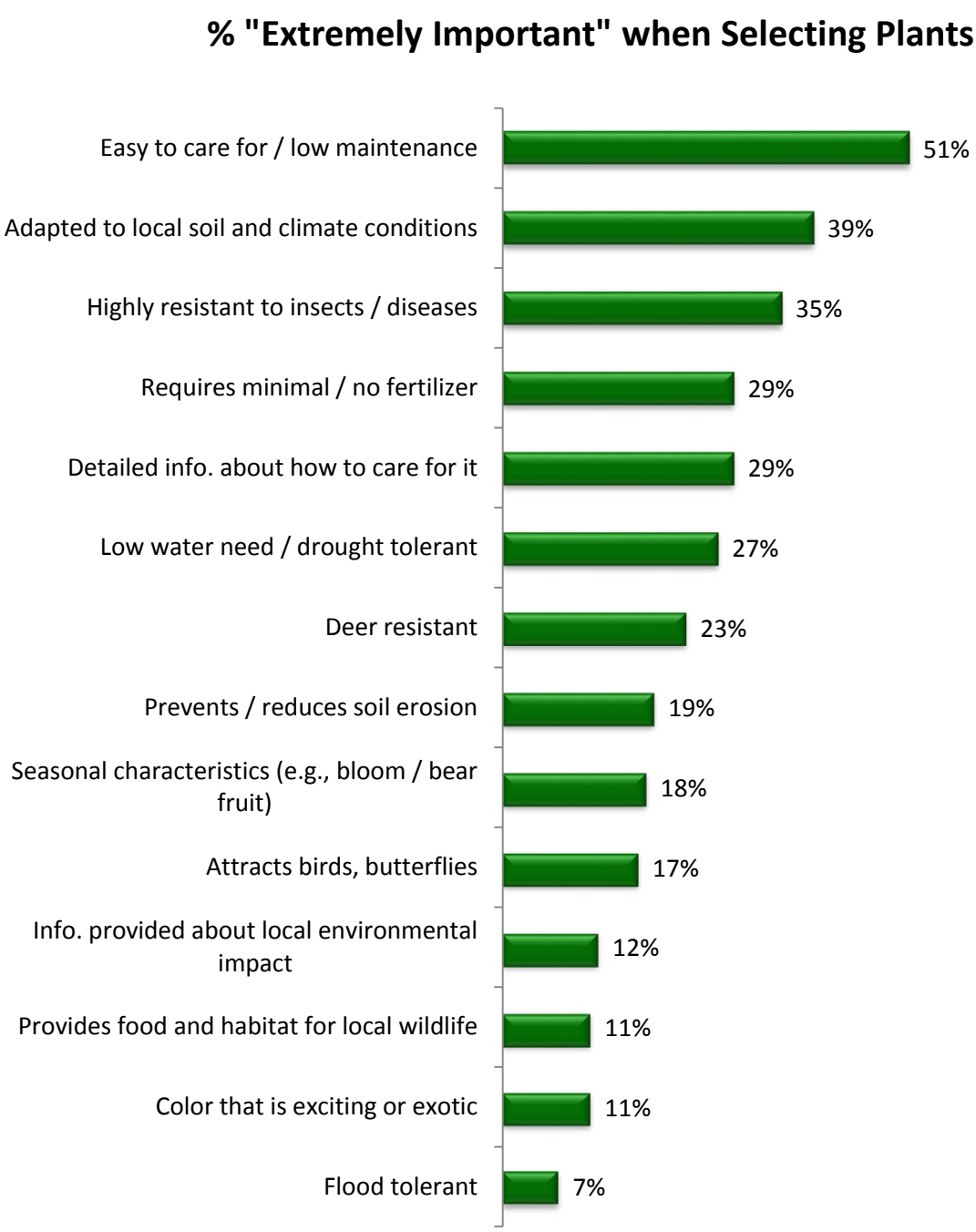
- In addition to the local plant nursery / garden center, many would be likely to shop for plants at various other places, such as a hardware store or discount store.

- The chart on the next page shows that the most common month for purchasing plants was April (65%), followed by May (57%). However, the months of March, June, September, and October had more than one-in-five respondents feeling they would be likely to purchase plants during those months.

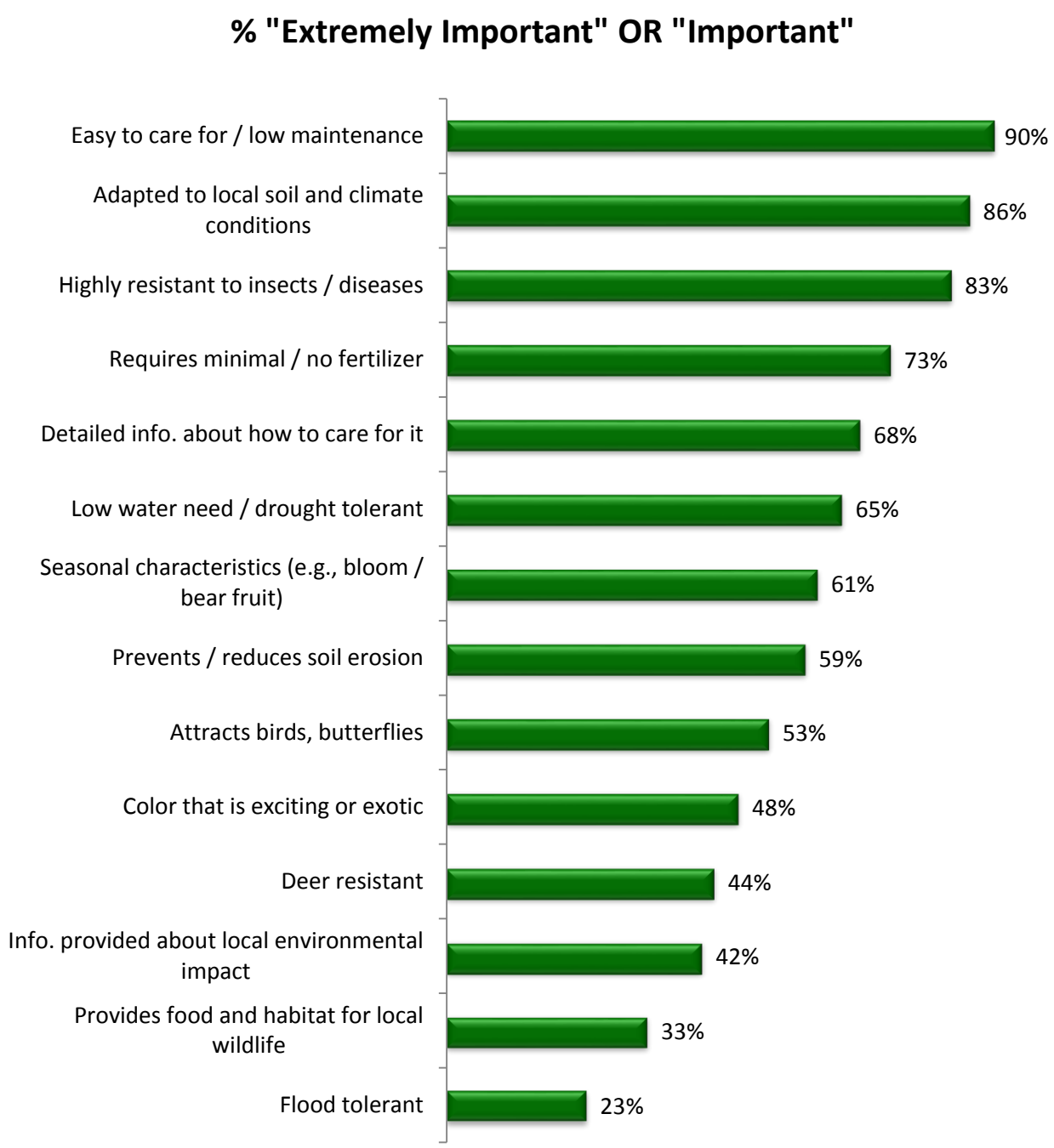
In which month or months are you or others in your household likely to purchase plants?



- The charts on the next three pages are based on importance ratings for a number of attributes of plants. For each attribute, respondents were asked to give a rating of either "Extremely important," "Important," "Somewhat important," "Not very important," or "Not at all important." (Incidentally, this question was asked before respondents were given information about "Native Plants" in the survey.) The chart on the next page shows the proportion giving an "Extremely important" rating. For example, 51% felt that "Easy to care for / low maintenance" was an "Extremely important" attribute when deciding which plants to purchase. This is especially interesting when thinking about "Native Plants," since this happens to be a strength of these types of plants.

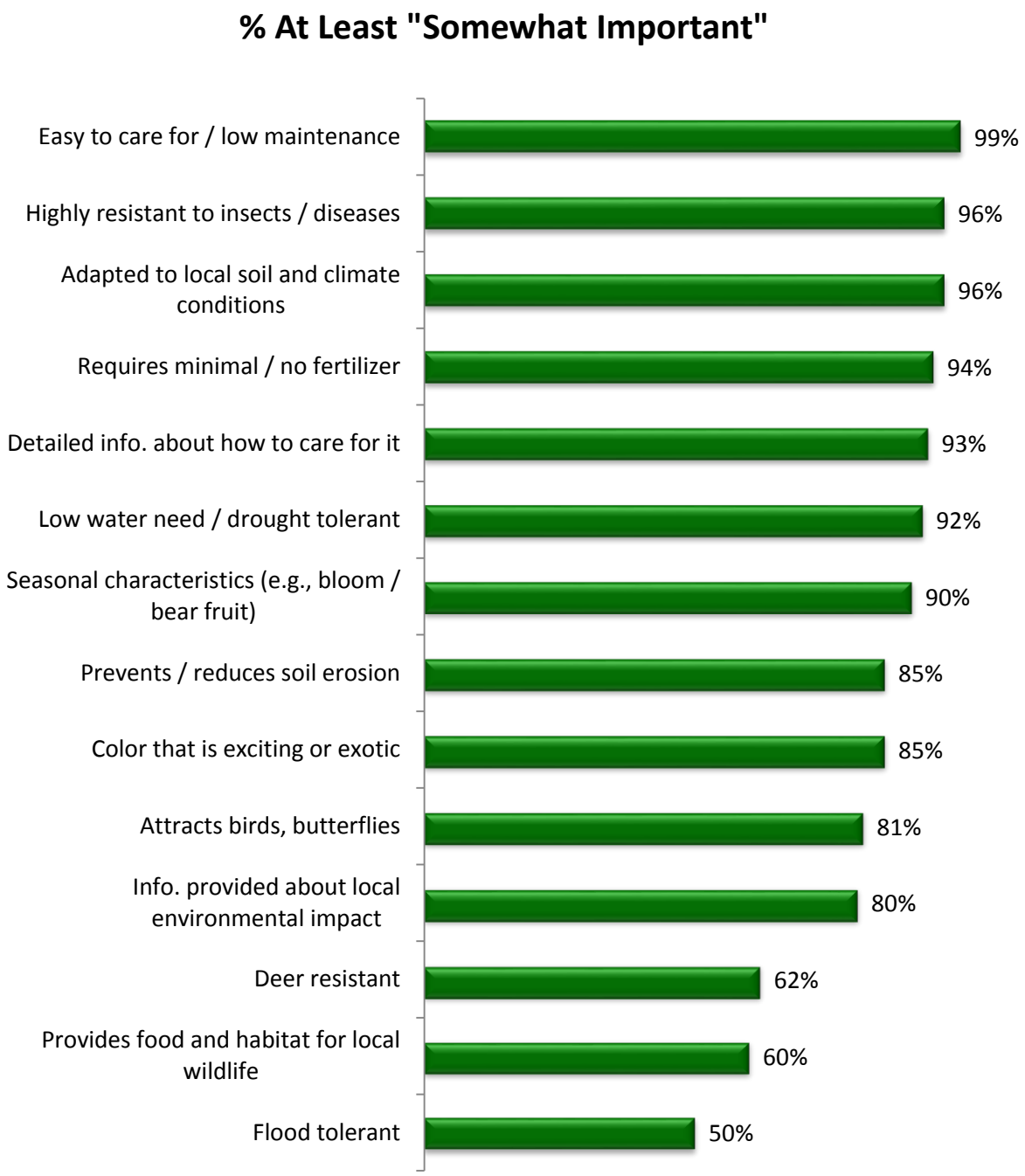


- Having the attributes sorted in descending order by the proportion giving an "Extremely important" rating helps to isolate the most critical attributes. However, many would feel that each attribute could be considered at least "Important" even if not "Extremely important." For this reason, the chart on the next page shows the proportion giving a rating of *at least* "Important" for each attribute.



- Most gave a rating of at least "Important" for low maintenance, being adapted to local soil and climate, and being highly resistant to insects / diseases. Again, this is especially interesting, since these happen to be advantages that "Native Plants" have over other plants.

- The chart on the next page shows the proportions rating "Extremely important" or "Important" or "Somewhat important" – i.e., *at least* "Somewhat important."



- High percentages considered each attribute to have at least some importance in the process of selecting plants.

Some Implications of the Research

- When hearing the term "Native Plants," homeowners living in Northern Virginia typically interpret the term correctly.

- However, they do *not* typically view themselves as *knowledgeable* about "Native Plants."

- This suggests that there is room to educate Northern Virginia residents about the many benefits of "Native Plants."

- In fact, when presented with some brief information, many became more interested in "Native Plants."

- Also, sizable proportions expressed interest in purchasing these types of plants.

- Many of the benefits of plants native to the area – e.g., low maintenance, adapted to local soil and climate, resistant to insects / diseases, etc. – were often considered important when selecting plants in general. This suggests that if future advertising points to these types of benefits, there is potential to increase interest.

- There does not seem to be a significant image problem currently, since Northern Virginia residents were more likely to associate positive rather than negative adjectives with "Native Plants." The primary need is to further educate residents so that more will readily think about the many advantages of using plants that are native to the area.

- For advertising, the optimal timeframe would begin in March and carry through to at least the end of May.

- When purchasing plants, many are likely to visit hardware stores and home center stores. However, even more are likely to consider a local plant nursery / garden center. This suggests that the latter still plays an important role, even with the strong presence of stores like Home Depot and Lowes.

- Many would be interested in seeing a store display or special area of a garden center devoted to "Native Plants."

Appendix: Questionnaire

INTRODUCTION:
Welcome, and thank you for participating in this important research survey.

S1. Are you:

- Male
- Female

S2. Which of the following categories includes your age?

- Under 18 **[END SURVEY]**
- 18 to 20 **[END SURVEY]**
- 21 to 24
- 25 to 34
- 35 to 44
- 45 to 54
- 55 to 64
- 65 to 74
- 75 or older

S3. Do you live in the state of Virginia?

- Yes
- No **[END SURVEY]**

S4. Which of the following best describes where you live (county or city or town)?

- Alexandria
- Arlington
- Dumfries
- Fairfax (city of)
- Fairfax (county of)
- Falls Church
- Herndon
- Leesburg
- Loudoun
- Manassas
- Manassas Park
- Prince William
- Purcellville
- Vienna
- None of the above **[END SURVEY]**

S5. Do you own or rent your residence?

- Homeowner
- Renter **[END SURVEY]**
- Neither **[END SURVEY]**

Q1. What types of plants do you currently have on your property or expect to plant on your property this year? (Select all that apply.)

- □ Ferns
- □ Flowers
- □ Fruit plants (e.g., berries, melons, etc.) / fruit trees (e.g., apple tree)
- □ Grass
- □ Herbs
- □ Large trees
- □ Shrubs / bushes
- □ Small trees
- □ Vegetable plants
- □ None / do not have any plants on my property
- □ Other: _____

Q2. In the past 12 months, have you read about or heard people discussing "Native Plants"?

- o Yes
- o No
- o Don't know / not sure

Q3. How knowledgeable are you about "Native Plants"?

- o Very knowledgeable – I've worked closely with them and can identify many in my area
- o Knowledgeable – I'm familiar with the term and can identify some in my area
- o Somewhat knowledgeable
- o Not very knowledgeable
- o Not at all knowledgeable – I have no idea what "Native Plants" are

Q4a. In your own words, how would you describe what "Native Plants" are and what impact or particular characteristics they have? (If you are not knowledgeable about this term, please describe what you would expect it to mean.)

_____

---------- Web Page Break ----------

Q4b. Which of the following adjectives, if any, do you feel describe "Native Plants"? [RANDOMIZE]

- □ Attracters of pests
- □ Beautiful
- □ Beneficial for the environment
- □ Colorful
- □ Dull or plain
- □ Easier to care for than other types of plants
- □ Expensive
- □ Inexpensive
- □ Innovative
- □ More difficult to care for than other types of plants
- □ Often available where I shop for plants

- □ Problematic for the environment
- □ Rarely available where I shop for plants
- □ Repel pests
- □ Unattractive
- □ Weedy
- □ None of the above

Q5. If you were to add or change plants on your property, how important would each of the following plant characteristics or other items be to you when selecting plants? [PROGRAMMING NOTE: RANDOMIZE ORDER OF ATTRIBUTES]

	Extremely Important	Important	Somewhat Important	Not Very Important	Not At All Important
Adapted to local soil and climate conditions	○	○	○	○	○
Color that is exciting or exotic	○	○	○	○	○
Deer resistant	○	○	○	○	○
Detailed information provided with plant about how to care for it	○	○	○	○	○
Easy to care for / low maintenance	○	○	○	○	○
Flood tolerant	○	○	○	○	○
Highly resistant to insects / diseases	○	○	○	○	○
Information is provided about the local environmental impact of the plant	○	○	○	○	○
Low water need / drought tolerant	○	○	○	○	○
Prevents / reduces soil erosion	○	○	○	○	○
Attracts birds, butterflies	○	○	○	○	○
Provides food and habitat for local wildlife	○	○	○	○	○
Requires minimal / no fertilizer	○	○	○	○	○
Seasonal characteristics (e.g., when they bloom or bear fruit)	○	○	○	○	○

---------- Web Page Break ----------

Q6. Imagine you were told that “Native Plants” require less water and fertilizer than other plants because they are better adapted to local soil and climate conditions and are more resistant to insects and disease. Also, “Native Plants” can be beneficial for local birds, butterflies, and other wildlife. Would hearing this information change your interest in “Native Plants”?

- o Don’t know / not sure if I believe this
- o No, I already knew about this
- o No, I would select plants mainly based on other characteristics
- o Yes, it would increase my interest in “Native Plants” somewhat
- o Yes, it would greatly increase my interest in “Native Plants”

Q7. How interested would you be in the following? [RANDOMIZE]

	Very Interested	Somewhat Interested	Maybe Interested	Not Very Interested	Not At All Interested
Visiting a "Native Plants" demonstration garden	○	○	○	○	○
Seeing a store display or special area of a garden center devoted to "Native Plants"	○	○	○	○	○
Seeing or hearing a public advertisement explaining "Native Plants" benefits and options	○	○	○	○	○
Reading an article explaining "Native Plants" benefits and options	○	○	○	○	○
Purchasing plants clearly identified as "Native Plants" for Northern Virginia	○	○	○	○	○

Q8. If you were to add or change plants on your property, where would you or others in your household be likely to purchase / obtain plants? (Select all that apply.) [RANDOMIZE]

- □ Arbor Day or other festivals
- □ Catalog / mail order
- □ Clippings or seeds from friends
- □ Community fund raising events
- □ Discount store (e.g., Wal-Mart, Target, Kmart, etc.)
- □ Grocery store
- □ Hardware or home center store (e.g., ACE, Home Depot, Lowes, etc.)
- □ Internet / websites
- □ Landscaping company
- □ Local plant nursery / garden center
- □ Warehouse Club store (e.g., Costco, Sam's Club, etc.)
- □ Other: _____

Q9a. What sources would you or others in your household be likely to use to help decide what plants to purchase and/or how to care for your plants? (Select all that apply.) [RANDOMIZE]

- □ Books
- □ Catalogs (in print)
- □ Gardening magazines
- □ Internet / websites
- □ Landscaping company
- □ Master gardener / garden club
- □ Neighbors / friends / relatives
- □ Newspaper
- □ Radio
- □ Retail store / plant nursery / garden center displays or staff advice
- □ Seed order catalog
- □ TV
- □ Other: _____

Q9b. If you selected gardening magazines, websites, or seed order catalog above, please specify which ones below:

_____

[PROGRAMMING NOTE: Text response would be optional for Q9b]

Q10. Using the five-point scale below, which rating best describes how you would decide between pricing and quality when purchasing plants?

- ○ 1 = I'll buy plants only when I can get a bargain price / significant discount / big sale
- ○ 2
- ○ 3
- ○ 4
- ○ 5 = I'm willing to pay a high price to get top quality and the exact types of plants I want

Q11. In which month or months are you or others in your household likely to purchase plants? (Select all that apply.)

- □ January
- □ February
- □ March
- □ April
- □ May
- □ June
- □ July
- □ August
- □ September
- □ October
- □ November
- □ December
- □ Don't know / not sure / varies
- □ None / not applicable / don't purchase plants

Q12. Who influences and/or decides what types of plants are planted on the property where you live? (Select all that apply.)

- □ I do
- □ Someone else in my household
- □ My Homeowners Association has some restrictions / guidelines for planting
- □ Landscaping company makes recommendations / decisions about what to plant
- □ Plant nursery / gardening center staff recommendations
- □ Not applicable / nothing has been planted on my property for many years
- □ Other: _____

Q13. Who cares for the plants (including trees, shrubs / bushes, flowers, etc.) on the property where you live? (Select all that apply.)

- □ I do
- □ Someone else in my household
- □ Landscaping company
- □ Not applicable / do not have any plants on my property
- □ Other: _____

[IF "I do" or "Someone else in my household" NOT SELECTED IN Q12 NOR Q13, THEN SKIP TO D1.]

Q14. Which of the following are reasons you or others in your household plant and/or care for plants on your property? (Select all that apply.) [RANDOMIZE]

- □ Beautify my property
- □ Enjoy gardening
- □ Feed the birds / butterflies
- □ For relaxation
- □ Homeowners Association requirements
- □ Just basic home maintenance
- □ Maintain or increase property value
- □ Prevent or reduce soil erosion
- □ To be a good neighbor / help maintain the neighborhood
- □ To be close to nature
- □ None / not applicable
- □ Other: _____

D1. Which of the following best describes your residence?

- o Single family home
- o Apartment
- o Condo
- o Duplex
- o Townhouse
- o Other: _____

D2. For how many years have you lived in your current residence?

- o Less than 1 year
- o 1 to 3 years
- o 4 to 9 years
- o 10 to 19 years
- o 20 or more years

D3. What is your current marital status?

- o Married
- o Single / never married
- o Divorced / separated / widowed

D4. Do you have any children under the age of 18 currently living in your household?

- o Yes
- o No

D5. What is the highest level of education you have completed?

- Some high school or less
- High school graduate
- Trade / vocational / technical school
- Some college
- Two-year college degree (e.g., Associates)
- Four-year college degree (e.g., Bachelors)
- Some graduate school
- Graduate degree (e.g., Masters, PhD, etc.)

D6. What is your total annual household income before taxes?

- Less than $25,000
- $25,000 to $49,999
- $50,000 to $74,999
- $75,000 to $99,999
- $100,000 to $149,999
- $150,000 or more
- Prefer not to answer

That completes our survey. Thank you very much for time and options!

APPENDIX A-2: CAMPAIGN STRATEGY

Northern Virginia Native Plant Campaign Strategy

A Strategy for Design and Implementation of a Community Based Social Marketing Campaign to promote use of Native Plants in the Residential Landscape

October 2013

Northern Virginia Regional Commission

Virginia Coastal Zone MANAGEMENT PROGRAM

Plant NoVa Natives Campaign Strategy

Table of Contents

Audience

Who is our primary target audience that will likely be more receptive to learning more about native plants?

- Homeowners living in single family homes or townhouses with incomes of $150,000 who care for plants on their property
- Age was not a strong factor in determining interest in native plants

Who is our secondary target audience?

- Landscaping industry
- Garden center staff

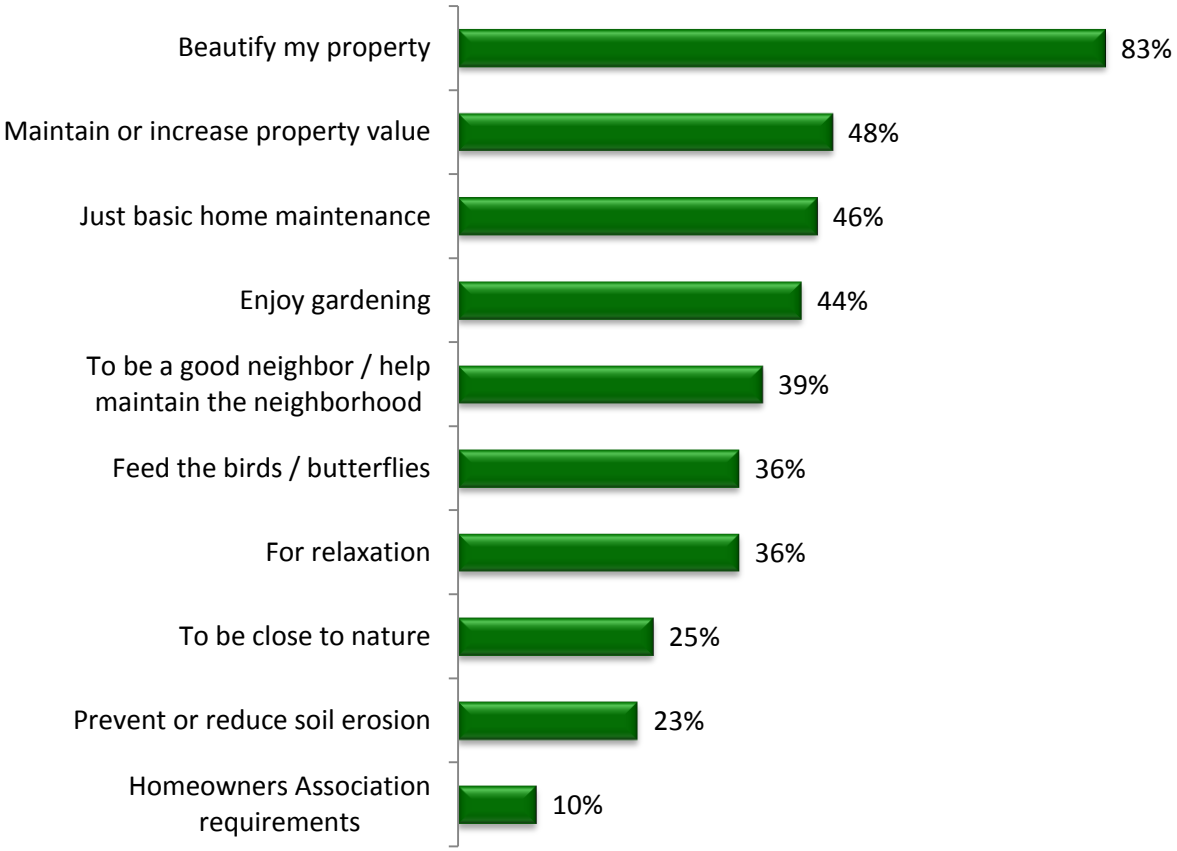
Messaging

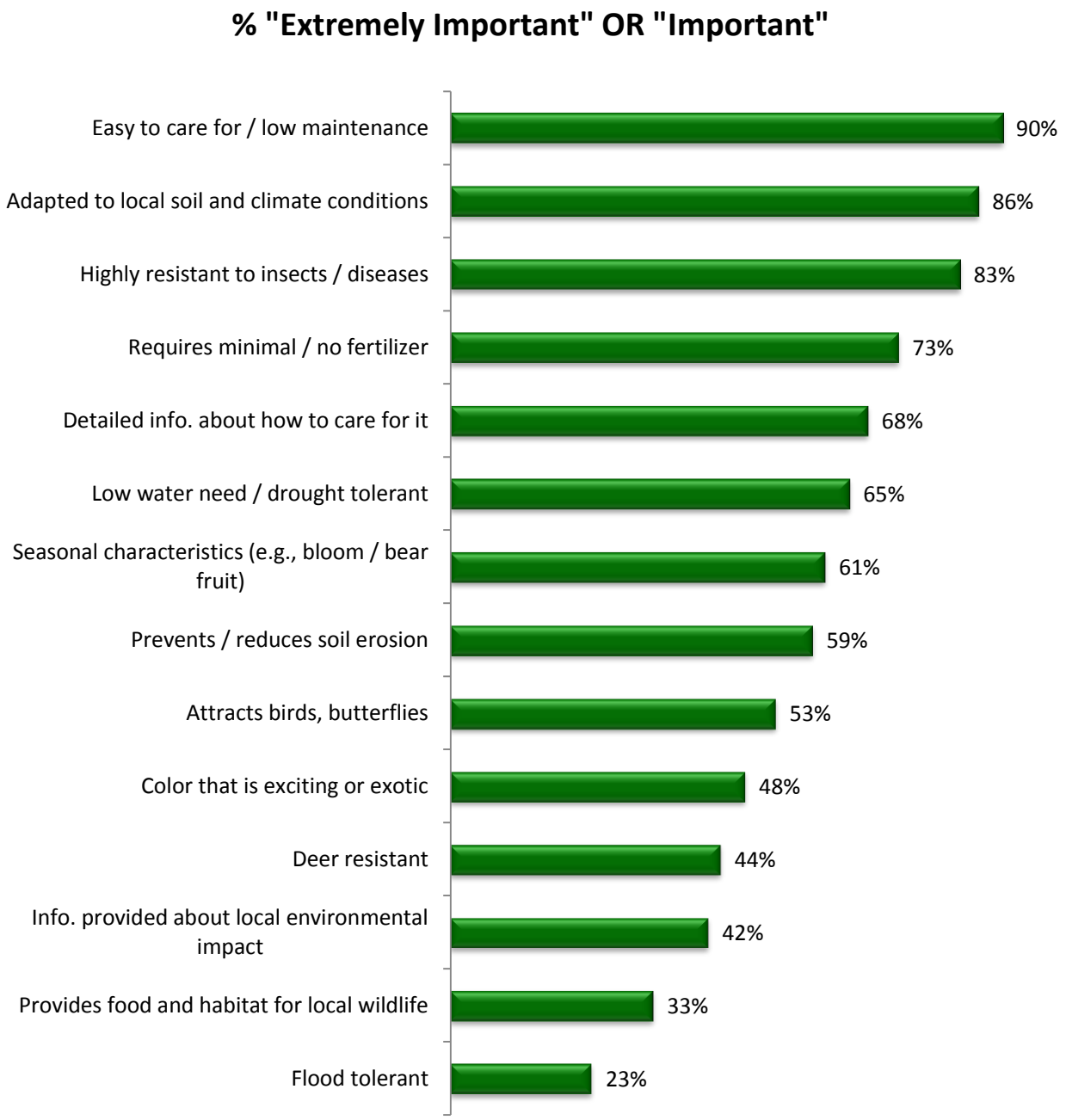
Selecting the messaging for the campaign required some examination of the motivations respondents had for planting or caring for plants. In addition, the attributes respondents selected as being “extremely important” or “important” when selecting plants to buy for their property were sorted and identified.

Strategy → Key messages should emphasize the following:

- NoVa natives are a beautiful alternative to non-native ornamentels
- NoVa natives are more beneficial for birds and butterflies than non-natives
- NoVA natives are easy to care for when established and
    - require less maintenance because they are adapted local soil and climate conditions
    - require minimal/no fertilizer
    - resistant to damage from insects and diseases
    - low water need/drought tolerant,

Which of the following are reasons you or others in your household plant and/or care for plants on your property?





Campaign Slogan

The top five attributes that respondents ranked as "extremely important" or "important" when selecting plants to purchase were all related to ease of care and low maintenance. This is an important component of the campaign since these are all attributes of Native Plants. If messaging is tailored to reflect these attributes, there is a potential to increase interest.

Easy to care for/low maintenance: 90%

Adapted to local soil and climate conditions: 86%

Highly resistant to insects/diseases: 83%

Requires minimal/no fertilizer: 73%

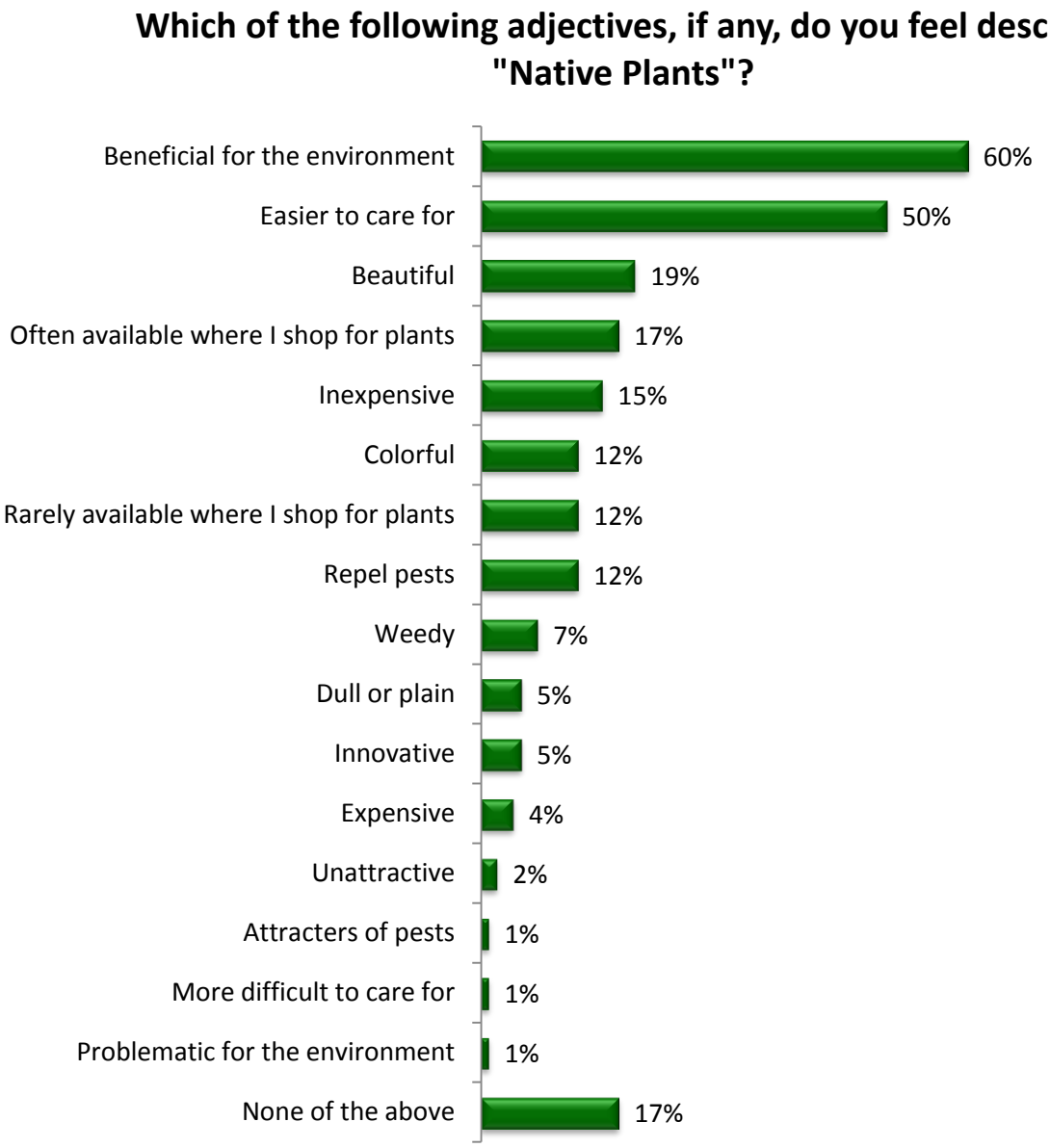
Low water need/drought tolerant: 65%

Strategy → Use slogan that emphasizes ease of care "Garden Easy, Plant NoVA Natives"

Native Plant Image/Perception

When asked to describe native plants from a list of adjectives, positive adjectives were selected more often than negative adjectives indicating that native plants don't have an "image problem". Since most respondents already perceive native plants as beneficial for the environment (60%) and easier to care for (50%), consumers are more likely to recognize messages that discuss these benefits as credible.

Strategy → Further educate consumers so they will more readily think about all of the other advantages of using native plants in their landscape.



Barriers

What are barriers or reasons people may be hesitant or uninterested to buy and plant natives on their property?

Strategy → Use market research to identify the barriers to purchasing native plants and identify strategies to overcome those barriers

- Plants aren't identified as native at place of purchase

- No store display or special area of a garden center devoted to native plants
- Lack of commercial availability
- Lack of demonstration gardens showcasing native landscaping
- No knowledge of native plant benefits and options

In addition, 18% of survey respondents indicated that they rely entirely on a landscaping company to select and care for their plants. An issue that was identified during the Collaborative Summit to Protect Water Quality through Actions on Urban-Suburban Properties held in Williamsburg in February 2013, was the lack of landscape industry professionals that were knowledgeable about native plants. It is possible that this campaign could encourage landscapers to become more interested in using native plants, especially if their clients also become more interested in seeing native plants on their property.

Availability

When asked about the issue of retail availability, results showed that only 17% of respondents felt they were often available and 12% felt they were rarely available. The mixed results may indicate an overall problem that they are difficult to find for sale in a retail setting. A very high proportion (81%) felt that they would be likely to shop at a local plant nursery / garden center.

Strategy → Use pot tags and other identifiers to differentiate NoVa Natives from non-natives at the point of sale

Strategy → Target garden centers/plant nurseries for the placement of promotional materials

Strategy → Use banners at participating garden centers to advertise that they carry NoVa Natives

Education Objectives

Even though many respondents accurately defined "native plants" most respondents viewed themselves as "not very" knowledgeable (40%) or "not at all knowledgeable" (27%). Only 8% of respondents selected that they were "knowledgeable" or "very knowledgeable". This suggests there is room to educate Northern Virginia residents about the many benefits of "Native Plants"

Strategy → Use a variety of educational tools to spread the key messages

- Community leader training for garden center staff, Master Gardeners and Master Naturalists
- Demonstration gardens
- NoVa Natives Guidebook
- Website
- Partner with other organizations with similar goals i.e. Audubon at Home
- Distribute promotional materials that tout key messages
- Promote garden center displays that feature NoVa natives
- Point of sale items to identify natives

Strategy → Use post campaign survey to measure any increase in percentages of respondents that classify themselves as "knowledgeable" or a decrease in the percent that identify with "not at all knowledgeable"

Behavior Change Measures

When given the educational statement "Native plants require less water and fertilizer than other plants because they are better adapted to local soil and climate conditions and are more resistant to insects and disease. Also, native plants can be beneficial for local birds, butterflies, and other wildlife." and asked if their interest in native plants would change after reading that statement, 68% of respondents felt that the information either "greatly increased" or "somewhat increased" their interest. When subsequently asked if they would be interested in purchasing plants clearly identified as "Northern Virginia Native Plants", approximately one-third (32%) would be "Very interested" in purchasing these types of plants, and another 35% would be "Somewhat interested."

The first question measures possible change in *interest* after exposure to educational information. The second question addresses potential for change in *behavior*. Thus, potential change in *behavior* (purchase of native plants) was based on being educated with the information presented in the first question above. This indicates that a large percentage of consumers will be willing to purchase native plants when they are given information about the benefits of native plants as well as the tools to identify them at the garden center.

Strategy → Use key messages in promotional materials, advertising, and Community Leader Training to educate consumers

Strategy → Use the guidebook and point of sale items such as plant tags to clearly distinguish NoVa Natives from other non-native plants at garden centers

Strategy → Use post campaign survey to evaluate effectiveness of the campaign at changing behavior

Strategy →Work with garden centers to measure sales of native plants

Strategy →Monitor traffic to campaign website

Timing of Campaign "Rollout"

The most common month for purchasing plants was April (65%), followed by May (57%). However, the months of March, June, September, and October had more than one-in-five respondents feeling they would be likely to purchase plants during those months.

Strategy → Create website in November/December 2013

Strategy → Conduct Community Leader Training in January and February 2014

Strategy → Distribute Campaign Promotional Items to garden centers February-March 2014

Strategy → Graduates of Community Leaders training to continue education for other Northern Virginia residents March 2014

APPENDIX B-1: WORKSHOP ADVERTISEMENT

Plant NoVA Natives
Naturally Beautiful!

Coral honeysuckle *(Lonicera sempervirens) and* Snowberry clearwing *(Hemaris diffinis)**

What is a native plant?

What are the benefits of native plants in our garden landscape?

How do non-natives and cultivars impact our environment?

How can I acquire native plants for my garden?

This **FREE** workshop aims to develop volunteer community leaders who can positively impact the natural resources of Northern Virginia by teaching others about the benefits of native plants in the residential landscape. Participants will be prepared to assist homeowners, garden clubs and the public at large with the identification of native plant species and help guide plant selection at retail establishments and community plant sales.

The target audience for this workshop are those who have a strong background in gardening/landscaping or naturalist activities but would like to learn more about the ecological benefits of native plants, which species are native to our region, and how to maintain them in the typical garden landscape.

The workshop is free. Advanced training hours are available for Virginia Master Gardeners and Master Naturalists. The workshop was developed by the partners of the Plant NoVA Natives Campaign**.

To Register

Workshop space is limited; please pre-register at http://www.novaregion.org/forms.aspx?FID=98 by Monday March 17, 2014. For more information, please contact Corey Miles at cmiles@novaregion.org. There are four dates and locations to choose from.

Dates and Locations are as follows:

March 19, 2014 7:00 – 8:30 pm Morven Park 17263 Southern Planter Ln. Leesburg, VA 20176	March 20, 2014 7:00 – 8:30 pm Green Acres Center 4401 Sideburn Road Fairfax, VA 22030
March 26, 2014 7:00 – 8:30 pm The Old Manassas Courthouse 9248 Lee Street Manassas, VA	March 27, 2014 7:00 – 8:30 pm Fairlington Community Center 3308 S. Stafford Street Arlington, VA 22206

*Coral honeysuckle is native to Northern Virginia. This vine is a larval host plant for Snowberry clearwing or bumblebee hummingbird moth. Its colorful tubular blooms provide an important source of nectar for hummingbirds and butterflies. The flowers are followed by red berries in the fall which attract songbirds. Can be trained to climb arbors and fences. Plant as a native alternative to the invasive and non-native Japanese honeysuckle.

**The *Plant NoVA Natives Campaign* is a partnership between the Northern Virginia Regional Commission, Virginia Coastal Zone Management Program, Virginia Department of Forestry, Virginia Native Plant Society, Audubon at Home, Nature By Design, Northern Virginia Soil and Water Conservation District, and the Mason Sustainability Institute

APPENDIX B-2: TRAINING MODULE PRESENTATIONS

Problem

- Much of native vegetation has been replaced with lawns, houses, and pavement.
- Remaining natural areas fragmented
- Residential landscape is comprised of non-native ornamental plants
- Requires fertilizers, pesticides, mowing

Plant NoVA Natives
Naturally Beautiful!

Plant NoVA Natives Campaign

Environmental Consequences

- Decrease in population of native songbirds, pollinators, and other wildlife
- Increase in pollution and stormwater runoff
- Invasive species takeover patches of natural areas

Goal

- Mitigate the environmental consequences by promoting the use of native plants in the urban and suburban landscape

Plant NoVA Natives
Naturally Beautiful!

Plant NoVA Natives Campaign

2-pronged Strategy

- Community Based Social Marketing
- Collective Impact

Photo of Rain Garden installed by Fairlington Villages HOA with funding through Arlington Stormwater Wise Program

Plant NoVA Natives
Naturally Beautiful!

Plant NoVA Natives Campaign

Community Based Social Marketing

Focused on behavior change

Landscape with plants native to Northern Virginia instead of non-native and potentially invasive ornamentals

Identify barriers to desired behavior

- Why should I plant native? – *lack of education*
- Where can I buy them? – *lack of commercial availability*
- What is native to Northern VA? – *plants aren't identified as native at place of purchase*
- They are just weeds! – *lack of well-kept demonstration gardens showcasing native species*

Plant NoVA Natives
Naturally Beautiful!

Plant NoVA Natives Strategies

Provide Community Leader training for Master Gardeners, Master Naturalists, Local Govt., Audubon, Others

- Use pot tags and other point of sale items to identify natives at garden centers
- Target garden centers/plant nurseries for the placement of promotional materials
- Use banners at participating garden centers to advertise that they carry NoVa Natives
- Use a variety of educational tools to spread the key messages
- Demonstration gardens in public places
- NoVa Natives Guidebook
- Website
- Partner with other organizations with similar goals i.e. Audubon at Home, PWWS
- Work with partners to distribute promotional materials that tout key messages
- Promote garden center displays that feature NoVa natives

Plant NoVA Natives Campaign

Collective Impact

- Diverse organizations coming together to solve a complex social problem
- Requires a coordinated, structured, and collaborative approach – when we operate in isolation and pursue our common goals independently we are not maximizing our collective strength
- Engage in mutually reinforcing activities
- Through CZM we have a backbone organization that can mobilize partners, coordinate activities, facilitate the conversation

Plant NoVA Natives
Naturally Beautiful!

Grow NOVA Natives Community Leader Training

Ecology of Native Plants

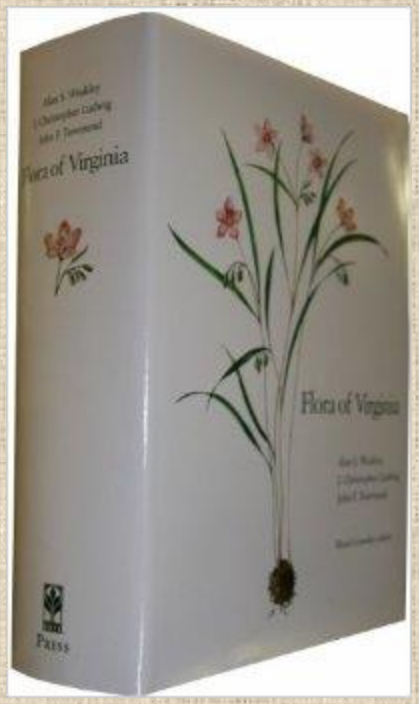
Plant NoVA Natives

Naturally Beautiful!

What is a Native Plant?

- Messy question
  - American Indians
  - Lack of Data
  - Local extinctions due to human land management
  - Warmer future

What is a Native Plant?



Native species evolved within specific regions and dispersed throughout their range without known human involvement. They form the primary component of the living landscape and provide food and shelter for native animal species.

WHY DO WE WANT PLANTS?

Environmental Services

- Improve air quality
- Improve water quality
- Reduce run off
- Sequester carbon
- Wildlife habitat
- Human Habitat

Human Habitat

- Health
  - Fitness
  - Asthma
  - Psychological
  - Healing
- Stress Reduction
  - Reduced domestic conflict
  - Less school aggression
- Improved attention
  - Direct Attention Fatigue
  - Reduced ADHD
- Aesthetics
- Economic
  - Shopping
  - Energy reduction
  - Property values
  - New business
  - Absenteeism
  - Job satisfaction
- Crime reduction
- Traffic
  - Clear zone
  - Calming
  - Asphalt
- Sense of Place

WHY NATIVE PLANTS?

Native *v.* Non-native

All planted landscapes will provide the services listed earlier. BUT, only native plants will give:

- A Sense of Place
- Superior Wildlife Habitat
- Protect Bio-diversity

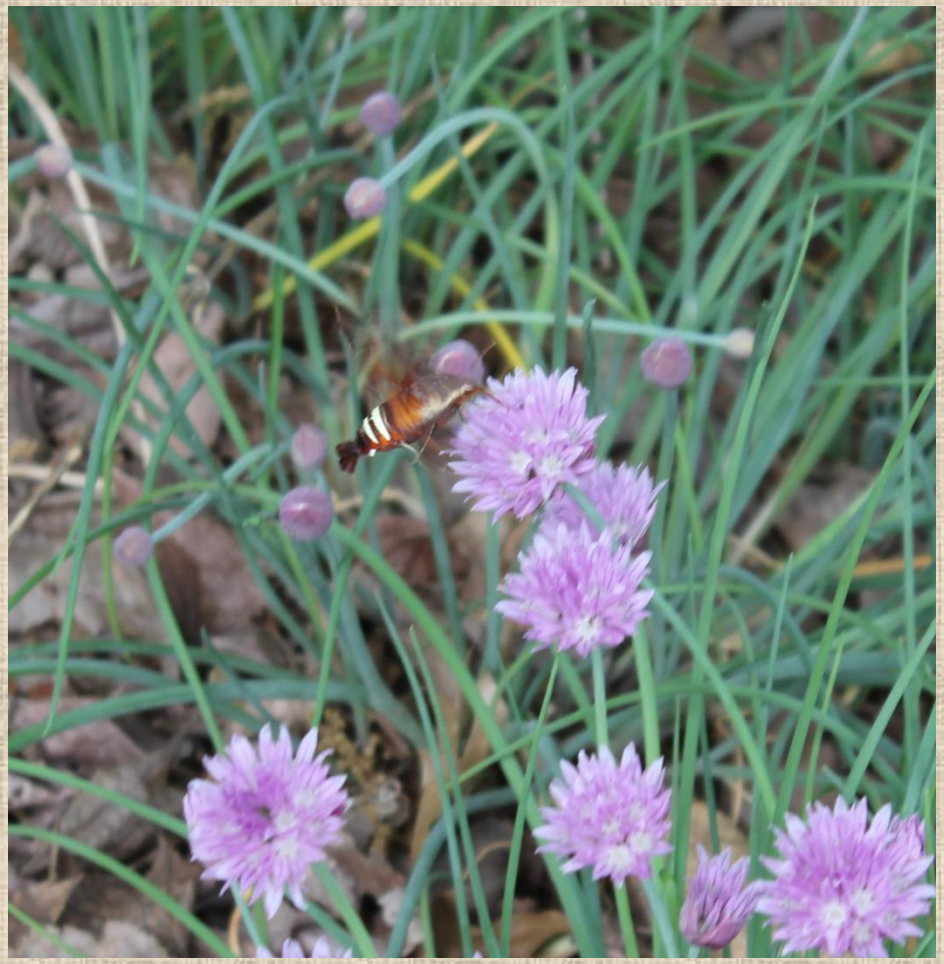
Sense of Place

Superior Wildlife Habitat

- Ecosystem energy flows from the sun through plants to animals; main grazing pathway is via insects
- Many non-natives are “pest free”
- All native butterflies have a native host plant
- Native berries have higher fat and protein content to fuel migration over Gulf of Mexico
- Plant diversity leads to animal diversity

Native Plants Don’t Do This

Native & Non-native Perspective



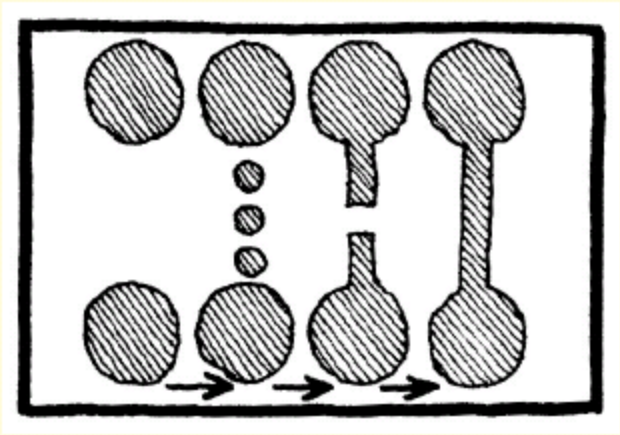
Native hummingbird moth on non-native chives. Caterpillar hosts on *Lonicera semipervans*

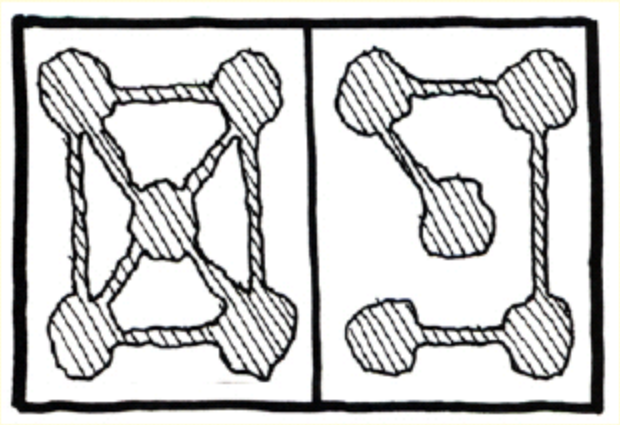
‘Big’ & ‘Small’ Nature

Map of Yellowstone National Park

An emerging issue in conservation is expanding focus to include ‘small’ nature in yards and vacant lots.

Connectivity through Corridors & Stepping Stones





When a corridor is broken, a cluster of stepping stones (small patches) can provide connection and alternate routes

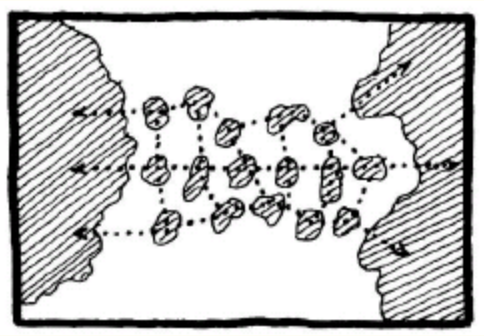


Image source: Dramstad, Wenche E., et al. *Landscape Ecology Principles in Landscape Architecture and Land Use Planning*. Washington D.C., Island Press, 1996.

Slide courtesy of the Green Infrastructure Institute.




SEEKING A CONNECTED AND HEALTHFUL LANDSCAPE

Forested cores and connecting corridors cross political boundaries. Keeping these areas intact and connected helps maintain wildlife habitat, recreation, clean water and supports scenic and historic vistas.

High Value Core = an area of intact, unfragmented forest at least 100 acres in size that provides habitat for local species as well as other benefits, such as protecting water quality. These include cores with outstanding to moderate ecological integrity (C1-C4), as identified in the Virginia Natural Landscape Assessment (VaNLA).

Contributing Landscape = an area that supports a core by buffering it from development and providing other related benefits, such as scenic views. These include cores with general ecological integrity (C5), as identified in the VaNLA.

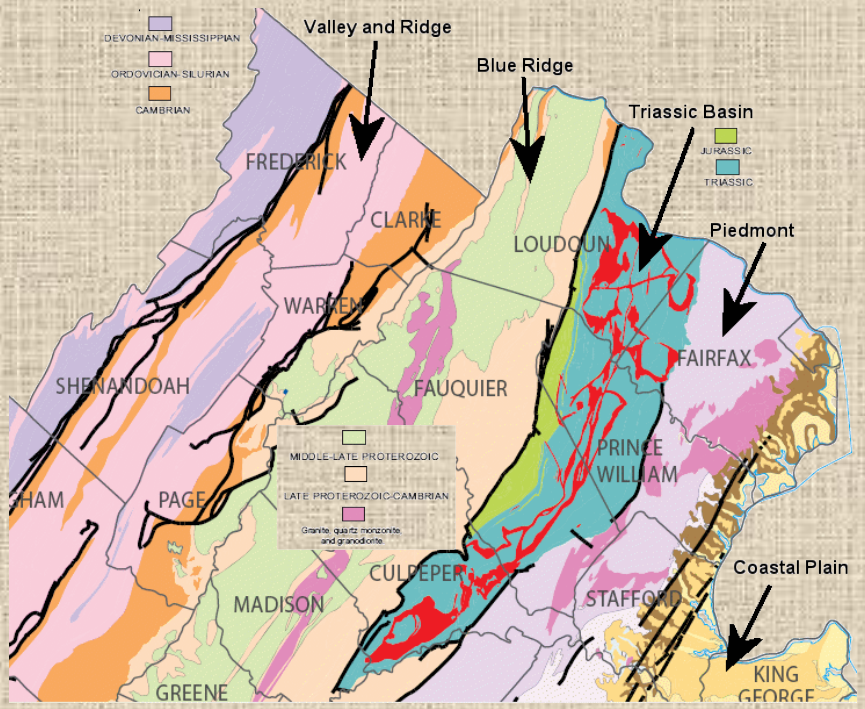
- High Value Cores
- Contributing Landscapes
- Intact Tree Cover (greater than 1/4 acre)
- Major Rivers
- Streams
- Rural Lands
- Urban Developed Lands

Source: Habitat cores data supplied by the Virginia Department of Conservation and Recreation, Division of Natural Heritage.

Conservation Corridor Regional Base Map

“Native Plants are Adapted to the Local Environment and are Easier to Grow?”

- True, depending on how you define ‘local’
- All plants have a range of tolerances – if you are in that range it will grow
- Non-native invasive plants out compete natives






Cornus florida ‘Appalachian Spring’

CULTIVARS




Pollinator Syndrome Traits Table								
Trait	**Pollinator**							
	Bats	**Bees**	**Beetles**	**Birds**	**Butterflies**	**Flies**	**Moths**	**Wind**
Color	Dull white, green or purple	Bright white, yellow, blue, or UV	Dull white or green	Scarlet, orange, red or white	Bright, including red and purple	Pale and dull to dark brown or purple; flecked with translucent patches	Pale and dull red, purple, pink or white	Dull green, brown, or colorless; petals absent or reduced
Nectar guides	Absent	Present	Absent	Absent	Present	Absent	Absent	Absent
Odor	Strong musty; emitted at night	Fresh, mild, pleasant	None to strongly fruity or fetid	None	Faint but fresh	Putrid	Strong sweet; emitted at night	None
Nectar	Abundant; somewhat hidden	Usually present	Sometimes present; not hidden	Ample; deeply hidden	Ample; deeply hidden	Usually absent	Ample; deeply hidden	None
Pollen	Ample	Limited; often sticky and scented	Ample	Modest	Limited	Modest in amount	Limited	Abundant; small, smooth, and not sticky
Flower Shape	Regular; bowl shaped – closed during day	Shallow; have landing platform; tubular, c	Large bowl-like, Magnolia	Large funnel like; cups, strong perch support	Narrow tube with spur; wide landing pad	Shallow; funnel like or complex and trap-like	Regular; tubular without a lip	Regular: small and stigmas exerted

PUBLIC CONCERNS

Bees

400 bees native to mid-Atlantic. Most are small, solitary and non-aggressive. Only females have stingers, and most cannot penetrate human skin. Honeybees swarm to protect hives, which native bees do not have.




Pollen

- Plants that produce flowers to attract pollinators do not broadcast pollen
- Goldenrod is a valuable late summer bloomer that supports small pollinators
- Ragweed is late summer bloomer that makes people sneeze

Vertebrates

- Animals must come from somewhere
- If terrestrial vertebrates are not near by, they will not find your yard
- Maintaining winter habitat, e.g. not cutting flower canes until spring, will keep them out of the house

Plant ‘Pests’ and IPM

- Many plant ‘pests’ are caterpillars
- Good vertical, horizontal and temporal plant diversity will attract insect grazers BUT
- Insect grazers will attract insect predators and parasites

Native Plant Marketing Campaign

Plant NoVA Natives

Naturally Beautiful!


Quercus alba
White Oak
Doug Tallamy's Tree


Cercis canadensis
Eastern Redbud
spd

Chionanthus virginicus

Fringe tree

Cephalanthus occidentalis
Buttonbush

spd

Cephalanthus occidentalis
Buttonbush

Itea virginica Virginia Sweetspire


Prunus americana
American wild plum

Viburnum prunifolium
Blackhaw Viburnum


Lonicera sempervirens Trumpet honeysuckle


Lonicera sempervirens Trumpet honeysuckle

Asclepias incarnata
Swamp Milkweed


Baptisia australis
Blue Wild indigo
spd

Lobelia cardinalis
Cardinal Flower


Lobelia cardinalis
Cardinal Flower


Monarda didyma
Scarlet Beebalm,
Oswego Tea
spd


Symphyotrichum nova- angliae
New England Aster


Vernonia noveboracensis
New York Ironweed

Carex pensylanica
Pennsylvania Sedge

Mitchella repens
Partridge-berry


Mitchella repens Partridge-berry

Osmundastrum cinnamomeum
Cinnamon Fern

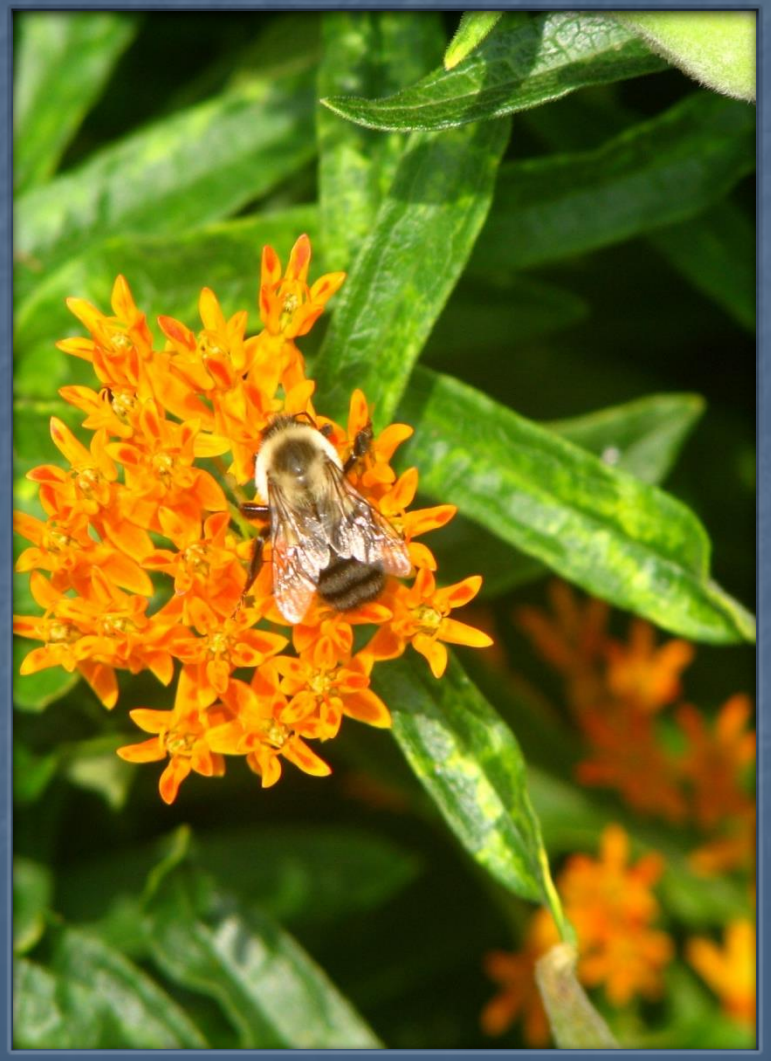
Native Plants

For all the right reasons:

Biodiversity * Wildlife Habitat * Ecosystem Stability * Beauty

Native Plants

- Support pollinators and leaf-eaters
- Don’t require pesticides or fertilizers
- Helps filter and clean water entering streams
- Critical to the preservation of all species



Structure Identification

Full Sun	Open Meadow
Wet/Part Shade	Riparian
Forest Floor	Forest Floor
Vines	Vines
Understory	Woody Shrubs
Forested	Forest Canopy

Questions

APPENDIX B-3: SUMMARY OF EVALUATIONS

Plant NoVA Natives
Naturally Beautiful!

Name:

E-mail:

1. For future training, what topics regarding native plants would you like to know more about?

2. In your experience, how can native plants be incorporated in your community?

3. What can we do to better promote the use of native plants in Northern Virginia landscapes?

4. What are the most common challenges or barriers you hear about pertaining to native plants?

5. Do you participate in organizations that you think would be interested in partnering?

6. As a Plant NoVA Natives Community Leader, how can you help to implement the campaign?
    a. Participate on a Steering Team Committee
    b. Write articles for newsletters, websites etc.
    c. Give presentations to local garden clubs, HOA's etc.
    d. Conduct outreach to garden centers
    e. Set up a table at a local fair or event
    f. Other- we welcome any and all other ideas and feedback!!!

Continued on other side

Evaluation

1. What did you find most helpful tonight?

2. Did we clearly communicate the Plant NoVA Natives Campaign goal?

3. How can this campaign be more effective?

Native Plant Community Leader Workshop Results

Location	Registered	Signed-In
Morven Park	36	24
Green Acres	67	53
Manassas Courthouse	58	45
Fairlington	74	38
Total	235	160

	As a Plant NOVA Natives Community Leader, how can you help to implement the campaign?					
Location	**A. Participate on a Steering Team Committee**	**B. Write Articles for newsletters, websites, etc.**	**C. Give presentations to local garden clubs, HOA's etc.**	**D. Conduct outreach to garden centers**	**E. Set up a table at a local fair or event**	**F. Other-**
Morven Park	**1**	**2**	**5**	**5**	**7**	
Green Acres	**1**	**3**	**2**	**8**	**8**	
Manassas Courthouse	**2**	**7**	**8**	**7**	**10**	
Fairlington	**6**	**17**	**12**	**10**	**12**	

Thursday, August 07, 2014

Volunteers Opportunities for Plant NoVA Natives Outreach
Fall 2014 Native Plant Sales and Events in Northern Virginia
Quick link to our activity signups on VolunteerSpot: http://vols.pt/YPRYLj

Thank you for attending a **Plant NoVA Natives** workshop in the spring and offering to be a "Community Leader" for outreach for the regional **Plant NoVA Natives** campaign!
The goal of the campaign is to encourage residents to ask for and plant native species.
Native plants are both beautiful and beneficial, and the key message is:

Ask for native plants at your plant retailer to:

- Support wildlife
- Benefit pollinators
- Improve water quality

Volunteers and Mentors Needed for Fall 2014 Plant Sales and Events
The **Plant NoVA Natives** campaign pilots with information booths and community outreach at several area Fall native plant sales and events.
Are you available to help staff a **Plant NoVA Natives** information booth at a plant sale or event?
Note: Your volunteer hours on the Plant NoVA Natives information booth and associated community outreach can be counted as volunteer service hours for either: Master Gardeners, Master Naturalists (code E12b) or Audubon At Home Ambassadors.
WE NEED two or three volunteers and leader/mentors for a few hours at each sale and event as follows:

- Saturday, September 13, 9 AM – 4.30 PM**,** Green Spring Gardens, Fall Plant Sale
  Green Spring Gardens, 4603 Green Spring Road, Alexandria, VA 22312
- Sunday, September 14, 9 AM – 3 PM, Morven Park, Loudoun Wildlife Conservancy, Native Plant Sale
  Morven Park, 17263 Southern Planter Lane, Leesburg, VA 20176
- Saturday, September 20, 1 – 4 PM, Long Branch Nature Center, Arlington, Fall Native Plant Sale
  Long Branch Nature Center, 625 S Carlin Springs Rd, Arlington, VA 22204
- Saturday, September 27, 9 AM – 2 PM, Northern Alexandria Native Plant Sale, Fall Native Plant Sale,
  Church of St. Clement, 1701 N. Quaker Lane, Alexandria, Virginia 22302
- Sunday, September 28, 10 AM – 2 PM, Earth Sangha, Fall Native Plant Sale
  Wild Plant Nursery, Cloud Drive, Springfield, VA 22150
- Saturday, October 11, 10 AM -2 PM, Prince William County Government, Fall Earth Fling
  Tackett's Mill Lakeside, 2228 Tackett's Mill Drive, Woodbridge, VA 22192
- Saturday, October 18, 10 AM – 2 PM, Prince William County Government, Recycles Day
  Prince William County Landfill, 14811 Dumfries Road, (Rt. 234), Manassas, VA 20112
- Wednesday, November 12, evening, Rick Darke, Living Landscape, Arlington, Central Library (TBC)

Sign up as a Volunteer/Mentor for Fall 2014 Plant Sales and Events
If you would like to help as a volunteer or leader/mentor at one or more of these events:
1) Click this link to see our activity signups on VolunteerSpot: http://vols.pt/YPRYLj
2) Review the plant sales and events listed and choose the one(s) you want to help at.
3) Sign up! It's Easy. You will NOT need to register an account or keep a password on VolunteerSpot, and VolunteerSpot does not share your email address with anyone.

Or, if you prefer you can email me, Mary Van Dyke, mvandyke@novaregion.org, with date(s), place(s) and window of time(s) that you can help.
4) When you have signed up as a volunteer/mentor, I will send you detailed logistics for that event.

Community Leader Toolkit for Plant NoVA Natives Information Booth
Each event will be supplied with a "Community Leader Toolkit": tabletop display, brochures for *Five Easy Flowers for Sun* and *Five Easy Plants for Part Shade*, cards, stickers, a presentation and website.
The informative 50-page Guide *Native Plants for Northern Virginia* will be published in mid-September.

Recap: if you would like to volunteer for **Plant NoVA Natives** at a fall plant sale or event, click the link to VolunteerSpot: http://vols.pt/YPRYLj

Thank you for considering these volunteer opportunities at regional plant sales and events to promote our **NoVA Native Plants**! Fall is an excellent time to encourage gardeners to transplant new plants.

Please contact me if you have any questions.

Best

Mary Van Dyke

Plant NoVA Natives
Community Leader Coordinator
mvandyke@novaregion.org
Northern Virginia Regional Commission
703-642-4628

Plant NoVA Natives
Naturally Beautiful!

APPENDIX B-4: REPORT OF COMMUNITY LEADER ACTIVITIES IN LOUDOUN COUNTY

The Plant NOVA Natives campaign was launched in Loudoun County on Sunday September 14th at the Loudoun Wildlife Conservancy native plant sale. Near the entrance to the sale the trifold board was placed on a table along with the brochures and copies of new NOVA Natives plant book. During the morning hours the table was manned here and there by several people who had attended the workshop held at Morven in March. For the afternoon hours Merry Breed worked this table. Books were given to all people who had attended the workshop as well as to a people who stopped by the table during the course of the day. My guess would be we gave out about 150 copies. Merry Breed then took the trifold and remaining brochures for an event at Claude Moore held on September 27th. After that event she had several books left which she intended to give to fellow Loudoun County Parks and Recreation managers. From the list of folks who attended the workshop (list attached). I have given books to all who were from Loudoun County plus one person who attended in Fairfax (this info was sent right after 9/14 to Mary). Since the event I have made sure the two main native plant landscapers in Loudoun County received copies of the book as well as the Loudoun Wildlife Conservancy board and a copy was given to Loudoun Soils and Water as well as to Wild Ones. At a recent talk on natives Carol Ivory, a master gardener, gave out 9 copies. At a Landscape for Life course offered in Loudoun by Loudoun Wildlife Conservancy participants were given copies of the book. A wonderful thing happened when one of the Landscape for Life folks called me to ask for another copy to give to her friend as a birthday gift! All active Audubon at Home Ambassadors have received copies of the book. A request for copies was received from Celia Vuocolo of PEC-we are making arrangements to get her 6 copies for PEC staff use. A request from Susan Abraham, who

teaches a class on sustainability at George Washington University, was given10 copies for students taking that class this semester. All in all comments are very positive here in Loudoun.

Ann Garvey

October 29, 2014

APPENDIX C-1: CAMPAIGN MULTI-MEDIA MATERIALS/COMMUNITY LEADER OUTREACH TOOLS

Community Leader Orientation
FAQs about the Plant NoVA Natives campaign and Native Plants in Northern Virginia

Q: What is Plant NoVA Natives?
A: Plant NoVA Natives is a new initiative and partnership funded by the Virginia Coastal Zone Management Program to promote the sale of native plants in the community, assist gardeners in the identification of native plant varieties at local retail establishments, and train Community Leaders who can be resources in the selection of native plants for the residential landscape. The Plant NoVA Natives program is based on successful campaigns carried out in Virginia's Eastern Shore and Northern Neck. The objective is to foster a change in behavior at the community level by removing the barriers to planting native plants (such as lack of availability or misconception that they are weeds) while simultaneously marketing the benefits of having native plants in the garden. Volunteer opportunities for Community Leaders include: talking with residents, citizens groups, homeowners associations, retailers, wholesalers, and growers to promote native plants in the landscape.

Q: Who are the Plant NoVA Natives Partners?
A: The Plant NoVA Natives campaign Partners include: Virginia Coastal Zone Management Program, Virginia Department of Forestry, Northern Virginia Regional Commission, Northern Virginia Soil and Water Conservation District, Virginia Cooperative Extension, Virginia Master Gardeners, Virginia Master Naturalists, Virginia Native Plant Society, Audubon Society of Northern Virginia, Loudoun Wildlife Conservancy, Nature by Design, and Mason Institute of Sustainability as well as area landscape professionals and plant suppliers.

Q: Who is coordinating the Plant NoVA Natives campaign?
A: The Plant NoVA Natives campaign is being coordinated by the **Northern Virginia Regional Commission**.

Q: What is the key message of the Plant NoVA Natives campaign?
A: The Plant NoVA Natives campaign key message is to encourage residents to ask for and plant native species that are native to the Northern Virginia region because:

- NoVa natives are a beautiful alternative to non-native ornamentals
- NoVa natives are more beneficial for birds and butterflies than non-natives
- NoVA natives are easy to care for when established and
    - require less maintenance because they are adapted local soil and climate conditions
    - require minimal/no fertilizer
    - low water need/drought tolerant

Q: What are the goals of the Plant NoVA Natives campaign?
A: The ultimate goal of the Plant NoVA Natives campaign is to restore and protect natural habitats in Northern Virginia by maintaining maximum native vegetation cover across the landscape. Since most of the land in Northern Virginia is privately owned, the Plant NoVA Natives campaign is an effort to make landscaping with native plants the new social norm. Specific objectives are to:

- Educate landscapers, gardeners and others about plant species native to Virginia
- Promote the use of native plants in the urban and suburban landscape because of the many ecosystem services they provide.
- Recruit Community Leaders who can be sources of information and assist others in the selection of native plant varieties

Q: What are the benefits of planting native plant species?
A: The benefits of planting native plant species are to:

- Support wildlife
- Benefit pollinators
- Improve water quality
- Reduce the introduction of non-native invasive plant species into our environment

Q: What is in the Plant NoVA Natives Community Leader toolkit currently?
A: The Plant NoVA Natives Community Leader toolkit is currently:

- The Logo: a coral honeysuckle and hummingbird sphinx moth and caterpillar
- Plant NoVA Natives website, www.plantnovanatives.org
- Guide to *Native Plants for Northern Virginia* (to be published in September)
- Display Board and display
- Brochures for easy-care native plant selections – such as Five Easy Flowers for Sun, and Five Easy Plants for Part Shade
- Card with key messages: NoVA Natives are naturally beautiful and to ask for native plants at your plant retailer
- Stickers with logo and website information
- 30-minute powerpoint presentation for Community Leaders to use in presentations with civic groups and residents such as homeowners associations

Q: How do I access the Plant NoVA Natives Community Leader toolkit?
A: The Community Leader toolkit is online at the website www.plantnovanatives.org
You are welcome to use the logo and from the website www.plantnovanatives.org you can download and print off copies of brochures, the guide, and other publicity materials. If you would like to loan a display board please contact Northern Virginia Regional Commission for information on locations/contacts.

Q: How is the Plant NoVA Natives campaign being funded?
A: Funding for the Plant NoVA Natives campaign is provided, in part, until September 30, 2014, by Virginia Coastal Zone Management Program at the Department of Environmental Quality through Grant *#NA11NOS4190122, Task 54* of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, under the Coastal Zone Management Ac t of 1972, as amended.

Q: What are native plants?
A: Native plant species evolved within specific regions and dispersed throughout their range without know human involvement. These plants form the primary structure of the living landscape and provide food and shelter for native animal species.

Q: Why are natives important?
Native plants attract a variety of birds, butterflies, and other wildlife by providing diverse habitats and food sources. Native plants feed insect plant eaters that are the base of the food chain and are the food for our young birds. Native plants feed the pollinators: hummingbirds, bats, bees, beetles, butterflies, and flies that carry pollen from one plant to another as they collect nectar. These pollinators sustain wildlife by providing nutritious berries and seeds, and our many fruits, vegetables, and nut crops, like blueberries, squash, and almonds. Plant a diverse palette of native plants to invite plant eating insects, and pollinators; and also their predators, seed dispersers and recyclers that make a garden work. Because our native plants and animals have evolved together, they support each other and we can enjoy a beautiful, living landscape.

Q: Where can I get a soil test?
A: To have your soil tested, contact your county or city's Virginia Cooperative Extension Office or www.ext.vt.edu/offices or your local Soil and Water Conservation District. For further information, look at www.soiltest.vt.edu.

Q: I am interested in getting more ideas on what to plant in my yard, what do I do?
A: Check out resources on www.plantnovanatives.org. On the website you will find lists of demonstration gardens and suppliers. You could also contact Audubon at Home (see also on the www.plantnovanatives.org website) to invite an Audubon at Home Ambassador to visit your yard and discuss potential recommendations.

Plant NoVA Natives

Naturally Beautiful!

Native Plants for Northern Virginia

Plant Northern Virginia Natives!

Plant NoVA Natives
Naturally Beautiful!

This guide showcases the attractive variety of plants native to Northern Virginia. Native plant species have evolved within specific regions and been dispersed throughout their range without known human involvement. These plants form the primary structure of the living landscape and provide food and shelter for native animal species.

This guide is being provided through the Plant NoVA Natives Campaign. The goal of the campaign is to promote the use of these plants in the urban and suburban landscapes of Northern Virginia for their many social, cultural and economic benefits, and to increase the availbility of Northern Virginia native plants in retail nurseries throughout the region. The campaign is a partnership of:

Audubon Society of Northern Virginia
Loudoun Wildlife Conservancy
Mason Sustainability Institute
Nature By Design
Northern Virginia Regional Commission *(lead organization)*
Northern Virginia Soil and Water Conservation District
Potowmack Chapter, Virginia Native Plant Society
Prince William Wildflower Society Chapter, Virginia Native Plant Society
Virginia Coastal Zone Management Program
Virginia Cooperative Extension
Virginia Department of Forestry
Virginia Master Gardeners
Virginia Master Naturalists

Although this guide is not comprehensive, the Northern Virginia native plants featured here were selected because they are attractive, relatively easy for the home gardener to acquire, easy to maintain, and offer various benefits to wildlife and the environment.

Design and publication management by Virginia Witmer, Coastal Zone Management Program and Corey Miles, Northern Virginia Regional Commission. Native plant information was provided by the following sources: *Flora of Virginia*, Virginia Native Plant Society, Lady Bird Johnson Wildflower Center/The University of Texas at Austin, and USFWS Native Plant Center. Special thanks to the collaborative effort of the following authors and reviewers: James McGlone, Alan Ford, Corey Miles, Nancy Vehrs, Carla Thomas, Joanne Hutton, Caroline Haynes, Elaine Tholen, Beth Polak, Suzanne Dingwell and Catherine Howell. Special thanks to all the wonderful photographers who shared their talent to help highlight the beauty of Northern Virginia native plants!

Edition One 8/2014

The Plant NoVA Natives campaign is part of a Virginia coast-wide native plant marketing initiative being coordinated and funded by the Virginia Coastal Zone Management Program. This guide is an adaptation of guides produced for the Eastern Shore and Northern Neck regions. Design and printing of this native plant guide was funded in part through grants from the U.S. Department of Commerce, NOAA, to the Virginia Coastal Zone Management Program at the Department of Environmental Quality under the Coastal Zone Management Act of 1972, as amended.

Virginia Coastal Zone

NOAA

Cover Photos (center): Lonicera sempervirens – Coral Honeysuckle, Dot Field/Virginia Department of Conservation and Recreation, Natural Heritage; (inset images top to bottom) Kalmia latifolia – Mountain Laurel, Margaret Chatham/Virginia Native Plant Society; Fragaria virginiana – Wild Strawberry, Sue Dingwell/Virginia Native Plant Society; Euonymus americanus – Strawberry-bush, Laura Beaty/VNPS; Claytonia virginica – Spring Beauty, Judy Gallagher*; Mertensia virginica – Virginia Bluebell, Laura Beaty/Virginia Native Plant Society*

Why Northern Virginia Natives Are the Best Choice


Dot Field/DCR

Loss of native vegetation and fragmentation of the natural landscape in Northern Virginia has had a significant impact on the ecological integrity of the region. As a result, wildlife habitat, water quality, air quality as well as the historic, natural character of the landscape has suffered.

Although much of Northern Virginia has been converted to pavement or lawns, individual gardeners can make a profound difference in the ecological sustainability of our region by simply choosing to plant species that are native to Northern Virginia in your landscape rather than species that are not native.

Whether you are a residential gardener, professional landscaper, or a grounds manager there are many Northern Virginia native plants from which to choose! More and more gardeners are discovering the benefits of native plants and requesting them at local garden centers.

Most of the plants featured in this guide are nursery propagated and can be found for sale at some local retail establishments. With increasing demand for natives, retailers are offering an ever-widening selection.

Northern Virginia native plants are beautiful. They have appealing foliage, flowers and berries that can make your landscape unique, attractive and welcoming, not only for people, but also for local wildlife.

Northern Virginia native plants are easier to maintain and save time and money. Naturally adapted to our local soils and climate, the native plants in this guide also are also relatively easy to maintain if given the correct growing conditions. By requiring less fertilizer, water and pesticides, native plants help reduce the load of chemicals introduced into our environment.

Northern Virginia native plants support wildlife. Birds and butterflies depend on native plants for food, shelter and reproduction. Your garden can become a habitat sanctuary and ‘rest stop’ for these animals. If your neighbors also plant natives, your community will help create the green corridors, or natural pathways, and the food that these animals need to sustain themselves as they migrate across the landscape.

Learn more about the Plant NoVA Natives Campaign - www.plantnovanatives.org

Northern Virginia native plants are beautiful, resilient, and attract the pollinators so critical to our local ecosystems!

Table of Contents

Judy Gallagher

Key to Perennial (Forb), Grass, Fern, Vine, Shrub, and Tree Sections

Latin name

common name(s)

sun requirements

Asclepias tuberosa **- Butterfly Weed**

height of plant at maturity

flower/berry color, bloom time

- 1 - 3 feet
- Yellow-orange to bright orange; May - Sept
- Full sun, part shade ← light requirement
- Moist or dry, well-drained sand, loam, clay, or limestone (tolerates drought)
- Natural habitat: open woods, glades, fields and roadsides

soil/moisture requirements

natural habitat

As its common name suggests, Butterfly Weed attracts butterflies, and is a larval host and nectar source for the Monarch butterfly (*Danaus plexippus*).

environmental, aesthetic, and economic benefits

interesting fact(s) about genus and/or species

Easily grown from seed, but is somewhat slow to establish and may take 2-3 years to produce flowers. Mature plants may freely self-seed in the landscape if seed pods are not removed prior to splitting open. Butterfly weed does not transplant well due to its deep taproot and is probably best left undisturbed once established.

This guide provides an index (page 6) of some of the many beautiful, resilient and beneficial plants that are native to Northern Virginia. A selection of these plants is highlighted beginning on page 11 including a photo and details on the plant's characteristics and requirements. The plants in the guide are listed alphabetically by scientific name and grouped in the following categories:

Forbs are small non-woody plants with showy flowers, generally pollinated by insects. Typically these plants are labeled as "perennials" at your garden center, so the guide refers to them as "Perennials (Forbs)".

Grasses, including sedges and rushes, have upright strap-like leaves.

Ferns reproduce using spores rather than flowers.

Vines can be woody or non-woody and do not support themselves.

Shrubs are small woody plants.

Trees are large woody plants.

Plant as great a variety of plants as you can from within and among these groups to enhance the value of your landscape.

All the plants in this guide are "***perennials***"—meaning that they come back every year.

Key to Terms

Light requirement:

Full sun: 6 or more hrs sun
Part shade: 2 to 6 hrs sun
Full shade: 2 hrs or less sun

Soil moisture:

Dry: no signs of moisture
Moist: looks & feels damp
Wet: saturated

Northern Virginia jurisdictions of Alexandria, Arlington, Fairfax, Falls Church, Loudoun and Prince William range from USDA Plant Hardiness Zones 6b to 8b.

All plants in this guide are suitable for this range of climatic conditions.

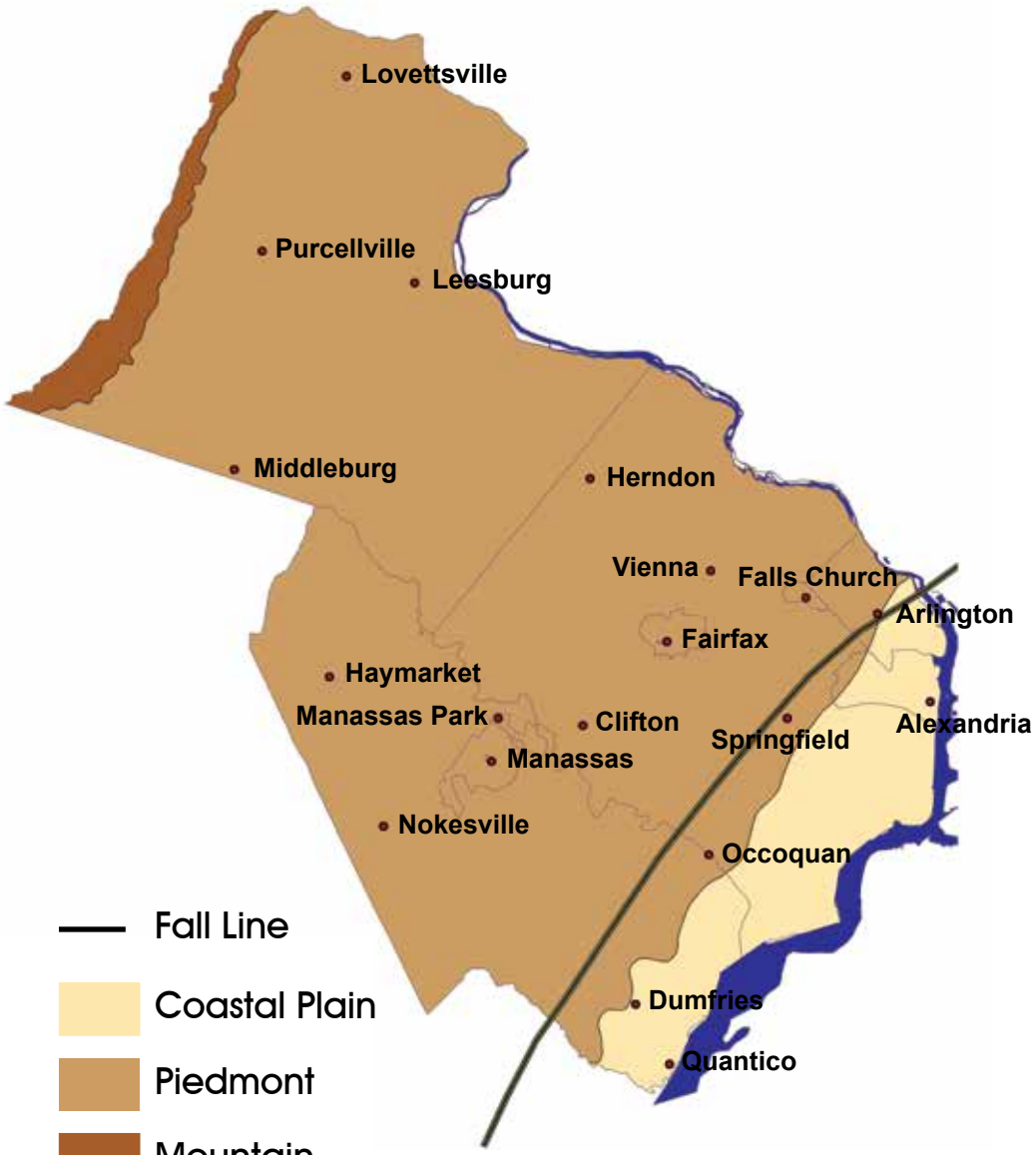
Soil type:

Soils in Northern Virginia are quite variable due to geologic variability (*see page 4 for more detail*). Most of the top soils removed during development leave behind a clay-rich sub-soil. Before adding anything to your soil other than a top dressing of organic mulch you should have your soil tested. To have your soil tested, contact your county Cooperative Extension Office (*www.ext.vt.edu/offices*) or your local Soil and Water Conservation District.

For more soil information and maps visit:

USDA Soil Survey - *http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm*

Northern Virginia Physiographic Regions



Data source:
U.S. Geological Survey

The Map

The map to the left shows the area covered by this guide.

Temperatures are fairly even across the region, even though elevations vary from nearly sea level along the Potomac River to almost 2,000 feet in the Blue Ridge Mountains of western Loudoun County, and the region encompasses the coastal plain, piedmont, and mountain physiographic regions.

The fall line is a geologic feature that marks the boundary between the coastal plain and the piedmont. The change from the rolling hills of the piedmont to the flat coastal plain is marked by an abrupt change in elevation that causes falls or rapids in the streams and rivers that cross it.

Plant Distributions

Native plant species evolved within specific regions and dispersed throughout their range without known human involvement. Native plants are distributed across the landscape based on a number of conditions—temperature, rainfall, soil fertility, soil moisture, drainage, amount of light, and others.

Although terms like physiographic region or hardiness zone can describe general conditions across a large area, the local conditions in your yard will determine what will best grow there. Information on light, moisture, pH, soil requirements, and physiographic region of origin for each native plant is provided in the index at the back of this guide.

Local geology and prior land disturbance affects soil fertility and moisture holding capacity. A soil test is always recommended before planting a garden. You can get a soil test kit from your local Cooperative Extension office, Soil and Water Conservation District, and other county or city offices (*see page 3*).

Natural Plant Communities in Northern Virginia

The geology and soils of the NOVA region are somewhat varied, but they support four main natural plant communities: those with good soils (Basic Oak-Hickory and Basic Mesic) and those with poor soils (Acidic Oak-Hickory and Oak/Heath). These plant communities reflect competition in the wild. In the less competitive setting of your yard, you may be able to mix these plants across forest types, especially between Acidic Oak-Hickory and Oak/Heath forests, and between Basic Oak-Hickory and Basic Mesic forests.

Oak/Heath Forest:

These forests are frequently found in the coastal plain, but may occur anywhere in the NOVA region. They are similar to the Acidic-Oak Hickory Forest, but generally have more laurel, rhododendron and blueberries and fewer forbs, grasses, and ferns. Characteristic oaks include: White Oak (*Quercus alba*), Black Oak (*Quercus velutina*) and Northern Red Oak (*Quercus rubra*). Small trees and shrubs found in this community include Downy Serviceberry (*Amelanchier arborea*), Wintergreen (*Gaultheria procumbens*), Mountain Laurel (*Kalmia latifolia*), Black Huckleberry (*Gaylussacia baccata*), rhododendrons (*Rhododendron maximum*), Wild Azalea (Rhododendron periclymenoides), and blueberries (*Vaccinium spp.*). Forbs include Spotted Wintergreen (*Chimaphila maculata*), Yellow Wild Indigo (*Baptisia tinctoria*) and Perfoliate Bellwort (*Uvularia perfoliata*). Eastern Bracken Fern (*Pteridium aquilinum*) is also found here.

Amelanchier arborea, Laura Beaty/VNPS; Gaultheria procumbens, Laura Beaty; Baptisia tinctoria, Laura Beaty; Kalmia latifolia, Margaret Chatham/VNPS.

Basic Mesic Forest:

These forests are typically found on north and east facing slopes. Dominant trees include: Chinquapin Oak (*Quercus muehlenbergii*), American Beech (*Fagus grandifloia*), Bitternut Hickory (*Carya cordiformis*). A common small tree is Pawpaw (*Asimina triloba*). Forbs include Common Black Cohosh (*Actaea racemosa*), Common Jack-in-the-pulpit (*Arisaema triphyllum*), Common Wild Ginger (*Asarum canadense*), Dutchman's Breeches (*Dicentra cucullaria*), Wild Bleeding Heart (*Dicentra eximia*), Twinleaf (*Jeffersonia diphylla*), Mayapple (*Podophyllum peltatum*), Bloodroot (*Sanguinaria canadensis*), and Heart-leaved Foamflower (*Tiarella cordifolia*). Northern Maidenhair Fern (*Adiantum pedatum*) also is present.

Adiantum pedatum, Laura Beaty/VNPS; Asimina triloba, Judy Gallagher; Dicentra eximia, T Garvey; Asarum canadense, Judy Gallagher

Acidic Oak-Hickory Forest:

These are typical forests of the piedmont upland. Dominant oaks include: White Oak (*Quercus alba*), Black Oak (*Quercus velutina*), Scarlet Oak (*Quercus coccinea)*, and Southern Red Oak (*Quercus falcata*). Flowering Dogwood (*Cornus florida*), Witch Hazel (*Hamamelis virginiana var. virginiana*), and Eastern Redbud (*Cercis canadensis*) are found in the understory. Early Lowbush Blueberry (*Vaccinium pallidum*) and Maple-leaved Viburnum (*Viburnum acerifolium*) are usually found here. Typical forbs include Plaintain-leaved Pussytoes (*Antennaria plantaginifolia*), Whorled Coreopsis (*Coreopsis verticillata*), Common Azure Bluets (*Houstonia caerulea*), Indian Cucumber-root (*Medeola virginiana*), Partridge-berry (*Mitchella repens*), Violet Woodsorrel (*Oxalis violacea*), Beardtongue (*Penstemon digitalis*), Solomon's-seal (*Polygonatum biflorum*), and Wild Pink (*Silene caroliniana*). New York Fern (*Parathelypteris noveboracensis*) and Pennsylvania Sedge (*Carex pensylvanica*) are also found in this group.

Quercus alba, Jim McGlone; Coreopsis verticillata; Penstemon digitalis, Laura Beaty; Silene caroliniana, Jan & Gaylan Meyer

Basic Oak-Hickory Forest:

This forest type is generally found in the Culpeper basin. Dominant overstory species are generally characterized by mixtures of White Oak (*Quercus alba*), Northern Red Oak (*Quercus rubra*), Pignut Hickory (*Carya glabra*), and Tulip Popular (*Liriodendron tulipifera*). Eastern Redbud (*Cercis canadensis*) and Flowering Dogwood (*Cornus florida*) are common understory species. Forbs include Spring Beauty (*Claytonia virginica*), Woodland Sunflower (*Helianthus divaricatus*), Eastern Solomon's-plume (*Maianthemum racemosum*), Solomon's Seal (*Polygonatum biflorum*), Star Chickweed (*Stellaria pubera*), goldenrods (esp. *Solidago caesia*), Rue-anemone (*Thalictrum thalictroides*), Wood Violet (*Viola palmata*). Bottlebrush Grass (*Elymus hystrix*) also is found here.

Maianthemum racemosum, Deana Crumbling; Ceris canadensis, Judy Gallagher; Quercus alba, Jim McGlone; Claytonia virginica, VNPS.

Perennials (Forbs)

Aquilegia canadensis • Wild or Eastern Red Columbine

- 1–3 feet
- Nodding, red and yellow bell-like flower with upward spurred petals in March–May
- Part shade
- Sandy, well-drained soils, medium loam, sandy loam
- Natural habitat: dry rocky woodlands to moist, well-drained forests

Short-lived plant, but readily self-sows. Backward-pointed tubes, or spurs, of the flower contain nectar that attracts long-tongued insects and hummingbirds especially adapted for reaching the sweet secretion.

Stunning flower. Attracts hummingbirds, bees, butterflies, and hawk moths. Larval host to Columbine Duskywing.

Arisaema triphyllum • Common Jack-in-the-pulpit

- 1–2 feet
- Large, cylindrical, hooded flower, green in color with brown stripes in March–April; in late summer, a cluster of bright red berries appears
- Part shade to full shade
- Moist to wet soils
- Natural habitat: humus-rich woods, bogs, swamps

Grows most vigorously in moist, shady, seasonally wet locations.

Excellent woods-garden plant. Very easy to cultivate in variety of conditions.

Aruncus dioicus • Goatsbeard (Eastern Goat's-beard)

- 3–8 feet
- Large, feathery clusters of small, white flowers in May–June
- Part sun to shade—subject to sun scald when not moist enough
- Moist/wet soils
- Natural habitat: rich woods, ravines, wooded roadsides, clearings

Needs space; good for large-scale displays massed in a drift down a slope. Aruncus, from the Greek aryngos (goat's beard), refers to the showy, finger-like flower clusters, which form feathery masses of all male or all female flowers. Male plants have showier flowers.

Attracts butterflies. Larval host to Dusky Azure (*Celastrina nigra*) butterfly.

Asarum canadense • Common Wild Ginger

- 4–8 inches
- Reddish to greenish brown flower at ground level beneath leaves in April–May
- Part shade to full shade
- Moist, rich soils
- Natural habitat: woodlands

Semi-evergreen, colonizing groundcover in shade. Seed dispersed by ants.

Larval host for Pipevine Swallowtail (*Battus philenor*) butterfly.

Asclepias incarnata • Swamp Milkweed

- 4–6 feet
- Pink, purple flowers in May–August
- Full sun to part shade
- Moist/wet, rich soils
- Natural habitat: wet freshwater areas such as meadow, field, riparian area, swamp, marsh

Good plant for wetland gardens. The genus was named in honor of Aesculapius, Greek god of medicine, because some species have long been used to treat a variety of ailments.

Swamp Milkweed's showy flower clusters attract butterflies and hummingbirds. It is an important food source for the Monarch caterpillar (*Danaus plexippus*).

Asclepias tuberosa • Butterfly Weed

- 1–3 feet
- Yellow-orange to bright orange in May–September
- Full sun to part shade
- Moist or dry, well-drained sandy soils
- Natural habitat: dry/rocky open woods, glades, fields and roadsides

Although it is sometimes called Orange Milkweed, this species has no milky sap. Butterfly Weed makes a delightful cut flower.

As its common name suggests, Butterfly Weed attracts butterflies, and is a larval host and nectar source for the Monarch butterfly (*Danaus plexippus*). Tolerates drought.

Baptisia australis • Blue Wild Indigo

- Up to 5 feet
- Blue-purple and pea-like in April–May
- Full sun
- Moist, usually sandy acidic soil
- Natural habitat: dry to moist open woods, streambanks, floodplains

Like other members of the pea family, this plant requires the presence of microorganisms that inhabit nodules on the plants root system and produce nitrogen compounds necessary for the plants survival.

Special value to bumble bees and other native bees.

Baptisia tinctoria • Yellow Wild Indigo

- 1–3 feet
- Yellow pea-like; May–September
- Full sun
- Dry, loam, sandy, acidic soils
- Natural habitat: dry open woods and clearings

The genus name, from the Greek baptizein (to dye), refers to the fact that some species are used as an inferior substitute for true indigo dye.

A larval host for Frosted Elfin (*Callophrys irus*) and Wild Indigo Duskywing (*Erynnis baptisiae*) butterflies.

Perennials (Forbs)

Chelone glabra • White Turtlehead

- 2–4 feet
- White, pink in July–September
- Full sun to full shade
- Light, rich, wet to moist soils
- Natural habitat: brushy marshes, stream banks, wet ditches, low meadows, woodlands

The distinctive shape of this flower is reflected in the genus name, derived from the Greek chelone (tortoise). The related Chelone lyonii has pink inflorescences.

Nectar source for butterflies.

Claytonia virginica • Spring Beauty, Virginia Spring Beauty

- 4–12 inches
- Pink or whitish flowers, striped with dark pink, in loose clusters in March– May
- Part shade
- Rich, moist soils; prefers high humus
- Natural habitat: rich woods, thickets

Plant disappears from above ground shortly after the seed capsules have ripened but does not leave a large gap in the garden. It grows from an underground tuber like a small potato; this has a sweet, chestnut-like flavor. Native Americans and colonists used them for food.

This most attractive spring perennial is spectacular in large patches. It spreads rapidly.

Coreopsis verticillata • Whorled or Threadleaf Coreopsis

- 6 inches–3.5 feet
- Yellow in May–August
- Full sun to part shade
- Dry, well-drained primarily acidic soils
- Natural habitat: dry, open woods

This plant spreads by rhizomes.

Attracts birds, butterflies. Drought tolerant.

Dicentra eximia • Wild Bleeding Heart

- 1.5–2 feet
- Deep pink to red, drooping heart-shaped flowers in April–June
- Part shade to full shade
- Moist soils
- Natural habitat: brackish marshes, rocky woods and cliffs, rich woods

Flowers close at night.

Attracts birds and bees.

Eurybia divaricata • White Wood Aster

- 6 inches–3.5 feet
- August–October
- Full shade
- Moist, loam, sandy, acidic soils; good drainage essential
- Natural habitat: medium to dry woods

Attracts butterflies.

Eutrochium purpureum • Sweet Joe-pye-weed

- 1–6.5 feet
- Tiny, pale pinkish-lavender florets in July–October
- Full sun to full shade
- Moist to wet well-drained, humus-rich, sandy & clay soils
- Natural Habitat: upland forests, barrens, floodplain forests, alluvial swamps, stream banks

Attracts birds and numerous pollinators. Special value to native bees.

Fragaria virginiana • Wild Strawberry

- Up to 1 feet
- Loose cluster of small, white, five-petaled flowers followed by tasty, wild strawberries in April–June
- Full sun to part shade
- Dry soils
- Natural habitats: woodlands, clearings, meadows

Cultivated strawberries are hybrids developed from this native species and the South American one. Not to be confused with Duchesnia indica - yellow-flowered groundcover. Supports Conservation Biological Control, meaning a plant that attracts predatory or parasitoid insects that prey upon pest insects.

Attracts butterflies, larval host to Gray Hairstreak. Special value to native bees.

Geranium maculatum • Wild Geranium, Spotted Geranium

- 8–28 inches
- Lavender flowers are in loose clusters of 2-5 in April–June
- Full sun to part shade
- Moderate to dry, highly acidic to calcium-rich soils
- Natural habitat: upland and floodplain forests

Attracts birds. Special value to bumble bees and other native bees.

Perennials (Forbs)

Helianthus angustifolius • Narrow-leaved Sunflower

- 3–6 feet
- Yellow in September–October
- Part shade
- Wet soils
- Natural habitat: bogs, ditches clearings

Narrowest-leaved sunflower.

Attracts birds and native bees.

Helianthus tuberosa • Jerusalem Artichoke

- 3–6 feet
- Yellow flowers, August–October
- Full sun to part shade
- Moist to drying soil
- Natural habitat: roadsides, woodland edges, thickets

Can be an aggressive spreader.

Good for native bees, and also provides cover and seeds for animals.

Heuchera americana • American Alumroot

- Leaves up to 6 inches; flowering stems 1–5 feet
- Leafless, hairy, sticky flower stalk rises 18–36 inches and surrounds its upper third with loosely grouped, minute, greenish, cup-shaped flowers in April–June
- Part shade to full shade
- Dry to moist soils
- Natural habitat: rocky woodlands and outcrops of various geologic formations; tolerant of a range of rock types and chemistries

This species has interesting foliage. It is a good rock garden plant and a good groundcover in shady gardens. It also grows well in pots. Deer resistant.

Attracts small bees.

Hibiscus moscheutos • Swamp or Eastern Rose-mallow

- 3–8 feet
- Creamy-white flowers in July–September
- Full sun to part shade
- Wet or moist alkaline soils
- Natural habitat: swampy forests, meadows, freshwater marsh edges

Clumps of Hibiscus start to grow late in the season and flower over a long period in late summer.

Strikingly showy species. Nectar source for hummingbirds.

Iris cristata ● Dwarf Crested Iris

- 4–16 inches
- Blue-violet or less often white flower in April–May
- Part shade to full shade
- Dry to moist, rocky, acidic and basic soils
- Natural habitat: woodlands, sometimes in mountain hollows and ravines

Attracts hummingbirds, bees.

Colonizes by rhizomes; separate plants as desired.

Lilium superbum ● Turk's-cap Lily

- 4–8 feet
- Red, orange, yellow in July–September
- Full sun
- Moist, loam, sand, acidic soils; good drainage essential
- Natural habitat: meadows, swamps, woods

Largest and most spectacular of the native lilies; up to 40 flowers have been recorded on a single plant.

The recurved sepals and petals, which presumably resemble a type of cap worn by early Turks, and the showy extruded stamens, are distinctive features. Indians used the bulbs for soup.

Liatris

A genus in the Aster family that belies the notion that straight native plants can't compete with cultivars or non-natives for showiness or beauty. All of these plants produce a large spike of lilac flowers that are a stunning accent to any garden or can be grouped as a centerpiece. Not only are they beautiful, but they are nectar plants for hummingbirds, butterflies and are especially good for native bees.

Though generally thought of as a mid-western prairie plant, the species below are native to Northern Virginia.

Liatris pilosa v. pilosa	Grass-leaf Blazing Star, Grass-leaf Gayfeather
Liatris scariosa	Large Blazing Star, Eastern Blazing Star
Liatris spicata	Dense Blazing Star, Gayfeather, Blazing Star
Liatris squarrosa	Scaly Blazing Star, Plains Blazing Star

Perennials (Forbs)

Lobelia cardinalis • Cardinal Flower

- 1–6 feet
- Red in July–October
- Full sun to full shade
- Moist to wet, humus-rich, sandy & clay soils
- Natural habitat: low areas, woodlands edge, stream banks, roadsides, meadows

The common name of this flower alludes to the bright red robes worn by Roman Catholic cardinals.

Valued for its ornamental blooms and color. Attracts birds. Depends on hummingbirds, which feed on the nectar, for pollination.

Lobelia siphilitica • Blue Lobelia

- 1.5 - 6 feet
- Lavender-blue, tubular flowers crowded together on the upper stem from July–October
- Full sun to part shade
- Moist to wet clay, loam or sandy soils
- Natural habitat: woodlands, meadows, swamps

This blue counterpart of the Cardinal Flower (Lobelia cardinalis) is a most desirable plant for woodland gardens especially since it blooms bright blue in late summer. This species is not drought tolerant. Supports Conservation Biological Control, meaning it is a plant that attracts predatory or parasitoid insects that prey upon pest insects.

Attracts birds and hummingbirds. Special value to bumble bees and other native bees.

Maianthemum racemosum • Eastern Solomon's-plume, False Soloman's-seal

- 1–3 feet
- Tiny white flowers at tip of stem (a 1–4 inch plume or raceme) March–June, followed by bright red berries
- Part shade to full shade
- Well-drained, medium to moist, slightly acidic soil
- Natural habitat: deciduous woods, shaded banks and ditches

A typical woodland plant in much of NOVA and beautiful choice for home landscaping in lightly shaded settings. It spreads by rhizomes but not aggressively enough to ever be invasive. Multiple arching stems, 1–3 feet long, grow from a single parent plant, making it a good option for a taller ground cover.

Birds attracted to the berries, which last through late summer and into the fall.

Mertensia virginica • Virginia Bluebell, Virginia Cowslip

- 8–28 inches
- Lavender-blue, bell-shaped in March–May
- Well-drained medium soils
- Part shade to full shade
- Natural habitat: floodplains, slope forests

This species is ephemeral, which means that its foliage dies back in summer. Interplant with other perennials. Reseeds freely. When it grows in masses, this species makes a spectacular show.

Pollinated by long-tongued bees, but supports many other early pollinators.

Mitchella repens • Partridge-berry

- 6 inches, creeping
- Pinkish-white, trumpet in May–July; red berry in July–December
- Part shade to full shade
- Dry or moist, humus-rich, sandy or loam, acidic soils
- Natural habitat: woods; stream banks; sandy slopes

All parts of this plant are dainty, Native American women drank a tea made from the leaves as an aid in childbirth.

Berries are consumed by a variety of birds and mammals. Use as groundcover under acid-loving shrubs.

Monarda didyma • Scarlet Beebalm, Oswego Tea

- 2–4 feet
- Scarlet-red, tube-shaped, tightly clustered flowers in July–September
- Full sun to part shade
- Moist to wet, acid soils
- Natural habitat: creekbanks, meadows, floodplains, woods

Linnaeus named the genus Monarda in honor of a 16th century Spanish physician and botanist, Nicolas Bautista Monardes (1493-1588). Monardes never went to the Americas but was able to study medicinal plants in Spain because Spain controlled navigation and commerce from the New World.

Attracts hummingbirds, butterflies. Special value to bumble bees and other native bees.

Oenothera fruticosa • Narrow-leaf Sundrops, Southern Sundrops

- 1–3 feet
- Golden-yellow in May–September
- Full sun
- Moist, acidic, well-drained soils; tolerant of brackish and lime soils
- Natural habitat: woods, roadsides, meadows

This plant spreads rapidly under favorable conditions but does not usually become aggressive.

Attracts birds and hummingbirds.

Opuntia humifusa • Eastern Prickly-pear

- 1-2½ feet, evergreen with 1–3 levels of flattened pads, each pad is up to 10 inches long, 7 inches across, and 1½ inches thick
- Yellow buds, one or more, can form on top of pad and each produces a single satiny yellow flower about 3–4 inches across followed by a pear-like fruit in late spring to mid-summer
- Full sun
- Dry, sandy soil

The blooming period of this plan occurs from late spring to mid-summer and lasts about a month for a colony of plants, although each flower lasts only a single day. Faster and easier to start new plants using pads, rather than seeds.

Attracts pollinating bees. A striking plant with beautiful, showy flowers.

Perennials (Forbs)

Packera aurea ● Golden Ragwort, Heartleaf Ragwort

- 1–4 feet
- Golden-yellow, daisy-like in March–May
- Full sun to full shade
- Dry or moist, loam, sandy, rich acidic soils
- Natural habitat: floodplain forests, meadows

Fragrant, evergreen groundcover, energetic spreader. Toxic to humans - do not consume.

Attracts butterflies and bees.

Peltandra virginica ● Arrow Arum, Green Arrow Arum, Tuckahoe

- 2–3 feet
- Yellow spadix surrounded by a greenish-white spathe occuring atop a statuesque stalk; blackish berries follow; April–June
- Part shade
- Mud
- Natural habitat: common in and along shallow waterways

The genus name derives from the Greek 'pelte' (small shield) and 'aner' (stamen), referring to the shield-like contour of stamens. The common name, Arrow Arum, derives from the pronounced leaf shape, while the name `Tuckahoe' is derived from the Algonquin name for the plant.

The berries of arrow arum attract wood ducks and king rails.

Penstemon digitalis ● Beardtongue, Tall or White Foxglove

- 1.5–5 feet
- Showy white tubular flowers in May–June
- Full sun to part shade
- Medium , loamy soils
- Natural habitat: wood margins, fields and other open, disturbed habitats

Relatively long bloom period on a well-behaved plant with handsome shiny leaves. Reseeds. Tolerates deer and drought.

Attracts hummingbirds. Special value to bumble bees and other native bees.

Phlox divaricata ● Wild Blue Phlox, Woodland Phlox

- 5 inches–2 feet
- Fragrant, lavender or pink flowers in April–May
- Filtered sunlight to light shade
- Rich, sandy or rocky, well-drained soils
- Natural habitat: floodplain forests to open woods

Often fragrant. Not rabbit or deer resistant. `Divaricata' refers to its sprawling habit.

Attracts hummingbirds, long-tongued bees and butterflies.

Podophyllum peltatum ● Mayapple

- 8 inches–1.5 feet
- Solitary, nodding, white to rose-colored flower; 6–9 waxy white petals in March–May; followed by large, fleshy, lemon-shaped berry
- Part shade to full shade
- Moist to dry, humus-rich soils
- Natural habitat: deciduous woods (not pine), shaded banks and various moist disturbed habitats

Spreads by roots. This species in ephemeral, which means that its foliage dies back in summer. All parts contains toxins, some of which have medicinal applications.

Cross-pollinated by bees. New colonies started by box turtles, which consume the yellow fruit and thereby spread the seed.

Pycnanthemum tenuifolium ● Narrow-leaf Mountain-mint

- 1–4 feet
- Whitish to lavender, with purple spots in June–September
- Sun, part shade
- Wet to dry soils
- Natural habitat: meadows, fields, roadsides, riverside outcrops

Silvery foliage and long blooming period. Rub leaves on skin to repel mosquitoes. Supports Conservation Biological Control, meaning it is a plant that attracts predatory or parasitoid insects that prey upon pest insects.

Attracts bees, birds, butterflies. Special value to bumble bees and other native bees, honey bees.

Rubeckia

Rudbeckia species, including Black-eyed Susan, Brown-eyed Susan, and Orange Coneflower, are easy to grow and low maintenance plants that are tolerant of most soils. They occur in fields, meadows, and roadsides. Some are shorter lived, but all re-seed and establish clumps.

- 1.5–4 feet
- Yellow petals around a dry, woody "cone" in July–September
- Full sun to part shade
- Moist to dry, clay, loam, sandy soils

Shown: *Rudbeckia fulgida* - Orange Coneflower. The seedheads of *Rubeckia spp.* are a favorite food source for goldfinches and chickadees.

Ruellia caroliniensis ● Carolina or Common Wild-petunia

- 0.5–3 feet
- Purple flowers, May–August
- Full sun to part shade
- Moist soils
- Natural habitat: roadsides, thickets, open woodlands

It is moderately tolerant of salt and likes higher pH, it is a good plant for the area between sidewalks and streets.

This plant has high value for pollinators.

Sedum ternatum • Wild Stonecrop, Woodland Stonecrop

Bees, wasps, and flies visit flowers.

- 2–8 inches
- White with five, pointed petals in April–June
- Part shade
- Well-drained, base-rich soils
- Natural habitat: floodplains and upland forests, shaded ledges and outcrops

Rock-loving, prostrate, spreading ground cover. Cuttings readily root and may be taken from sterile shoots at any time during the growing season. Easy to propagate.

Silene caroliniana • Wild Pink, Sticky Catchfly

Hummingbirds and butterflies nectar on this beauty. Stunning, showy plant.

- 1.5–8 inches
- Rose-pink, tubular flowers in April–July
- Part shade
- Tolerant of a range of soil and rock chemistries
- Natural habitat: forests, woodlands, barrens and outcrops

A single wild pink plant can produce 50-100 showy, rose-pink, tubular flowers. It is commonly mistaken for Phlox.

Solidago

A genus of 90 to 110 species commonly known as goldenrod. **Goldenrods** are mostly yellow late summer and fall blooming flowers with a variety of shapes. They provide late season food for bees and butterflies and may attract predatory or parasitoid insects that target pest insects. Goldenrod, with its brilliant fall flowers, is often mistakenly believed to cause hayfever; the real offender is ragweed, which blooms at the same time with inconspicuous flowers and wind blown pollen.

Goldenrods average one to four feet in height, but some varieties can reach eight feet. They grow in a broad range of light and moisture conditions on a variety of soils. The following species will add splashes of yellow and gold to home gardens and other cultivated landscapes.

Species that grow in lightly shaded woodland settings:
[Please note that these species will not grow in deep shade.]

Solidago caesia	Blue-stemmed Goldenrod, Wreath Goldenrod
Solidago flexicaulis	Zig-zag Goldenrod
Solidago nemoralis	Gray, Dwarf, Old Field Goldenrod

Species that grow in a range of part shade/part sun:

Solidago caesia	Blue-stemmed Goldenrod, Wreath Goldenrod
Solidago nemoralis	Gray, Dwarf, Old Field Goldenrod
Solidago rugosa	Rough-stemmed Goldenrod, Wrinkle-leaf Goldenrod

Species that prefer full sun:

Solidago altissima	Tall Goldenrod, Late Goldenrod
Solidago juncea	Early Goldenrod
Euthamia graminifolia	Flat-top Goldenrod

Sisyrinchium angustifolium ● Narrow-leaved Blue-eyed-grass

(S. graminoides)

- 8–20 inches
- Delicate, blue or deep blue-violet flowers with yellow centers in April–June
- Full sun to part shade
- Moist to dry, poor to average soils
- Natural habitat: upland forests, meadows, fields, woods

Member of the iris family. Deciduous. Avoid heavy mulch. Should be divided every other year. Reseeds.

Songbirds eat the seed. Drought tolerant.

Symphyotrichum

A genus of about 90 species of herbaceous annual and perennial plants in the composite family (*Asteraceae*) that were formerly treated within the genus *Aster*. The majority are native to North America.

Symphyotrichum cordifolium
Heart-leaved Aster, Blue Wood Aster

Symphyotrichum laeve (Aster laevis)
Smooth Blue Aster, Smooth Aster

Symphyotrichum lateriflorum
Calico Aster

Symphyotrichum nova- angliae
New England Aster

Symphyotrichum novi-belgii
New York Aster

Shown: *Symphyotrichum nova-angliae,* New England Aster.

Asters support many insect visitors. Bees, butterflies, and skippers enjoy the flowers.

Viola

A genus of over 500 species worldwide, with 30 species native to our region and commonly known as violets. Violets are small plants that come in a variety of flower colors, leaf shapes and forms. They provide nectar for bees and are host plants for several fritillary butterflies. Ants spread their seeds.

Viola sororia.

Two common species (*V. sororia* and *V. bicolor*) may be used in low maintenance settings such as meadows and naturalized lawns. The easy-care, attractive species listed here can be used as fillers among taller plants and will add color to spring and early summer gardens.

Viola cucullata	Marsh Blue Violet flowers April-June, moist conditions, marsh, riverbank
Viola labradorica	Dog Violet (*V. conspersa*) stemmed, flowers late Mar - May
Viola pedata	Bird's-foot Violet flowers March-June, deeply cut leaves, dry forests and clearings
Viola pubescens	Yellow Violet yellow flowers March-May, well drained rich soils
Viola sagittata	Arrow-leaved Violet flowers April, narrow shaped leaved
Viola striata	Striped Violet, Cream Violet moist woodlands, blooms later and longer than most

Perennials (Forbs)

Vernonia noveboracensis ● New York Ironweed

- 3–6 feet
- Red-purple flowers in July–September
- Full sun to part shade
- Found in moist soils in the wild, but will flourish in regular or dry soil; tolerates clay and neutral to acidic conditions
- Natural habitat: floodplain forests, riverbanks, meadows, roadsides

As a tall, narrow plant, it is suited for the back of the border or tight spaces.

Flowers attract butterflies and seed heads attract birds. Special value to native bees.

Zizia aurea ● Golden-alexanders, Common Golden-alexanders

- 1–3 feet
- Clusters of tiny, yellow flowers in April–May
- Full sun to full shade
- Moist to wet soils
- Natural habitat: floodplain forests, marshes, clearings

Dry seedheads turn purple, adding summer interest. Supports Conservation Biological Control, meaning it is a plant that attracts predatory or parasitoid insects that prey upon pest insects.

Attracts butterflies. Larval host to Black Swallowtail. Special value to native bees.

Insect–Plant Coevolution:

The Story of the Yucca and the Yucca Moth

Native plants form the primary structure of the living landscape and provide food and shelter for native animal species. Native plants co-evolved with native animals and have formed complex and interdependent relationships. One of the most extraordinary partnerships between an insect and the plant is that of the yucca and the yucca moth. They are so interdependent that one cannot live without the other.

***Yucca filamentosa* - Common Yucca, Adam's Needle** depends upon the Yucca moth (Tegeticula maculata) as its agent of pollination. The moth depends on on the yucca for food. At flowering time the female moth gathers a mass of pollen from the anthers of the yucca and then flies to another yucca flower, where she deposits a number of eggs into the ovary among the ovules (immature seeds). Next, she places the pollen mass on the stigma of the flower, thus ensuring pollination and subsequent development of the ovules into seeds. As the seeds enlarge, they become the food source for the moth larvae. Many of the seeds remain uninjured and are eventually dispersed, potentially producing new plants. At maturity, the larvae leave the seed capsule, drop to the ground, and pupate. The adult moth emerges next season as the yuccas begin to flower.

Carex pensylvanica ● Pennsylvania Sedge

- 6–12 inches
- April–June
- Full sun to full shade
- Dry to moist soils
- Natural habitat: woods

Plant enriches soil and makes a nice groundcover. Spreads by rhizomes. Many other sedges also make handsome, easy-care groundcovers.

Attracts birds.

Eragrostis spectabilis ● Purple Love Grass

- 8–18 inches
- Purplish red panicles appear in August–October
- Full sun
- Dry to moist sandy soils
- Natural habitat: woodlands, fields

Drought tolerant. Best in masses, where it creates a lovely purple haze in seed.

Host to Zabulon skipper. Seed consumed by birds and other wildlife.

Schizachyrium scoparium ● Little Bluestem

- 1.5–4 feet very dense mounds
- White seedhead in August–October
- Full sun to part shade
- Dry, well-drained, sandy, clay or loam soils
- Natural habitat: woodland edges, hillsides, slopes, open areas

Wonderful planted en masse. This grass provides a changing visual dynamic that ranges from blue-green stems in late summer to radiant mahogany-red, white tufted seedheads in fall. A reddish-tan color persists during winter.

In winter the seeds, fuzzy white at maturity, are of particular value to small birds.

Sorghastrum nutans ● Indian Grass

- 1.5–8.5 feet
- Leaves turn brilliant mauve, red and purple in September–November and provide attractive early fall color; fruits turn from red to blue to black
- Full sun
- Dry to moist; tolerates range of soil chemistries
- Natural habitat: prairies, slopes, borders of woods

Birds eat fruit through the winter.

Ferns

Adiantum pedatum • Northern Maidenhair Fern

- 8–20 inches
- Burgundy red fiddleheads appear in early spring; fertile, not flowering but reproduces by spores; June–August
- Part shade to full shade
- Moist/well-drained soil; nutrient-rich soils; not drought tolerant
- Natural habitat: mountains

This fern is quite easy to grow if it is provided with the right conditions. Forms colonies by creeping rhizomes.

Provides shelter for toads and lizards.

Matteuccia struthiopteris • Ostrich Fern

- 1–6 feet
- July–October; fertile, not flowering but reproduces by spores
- Part shade to full shade
- Cool, sandy soils
- Natural habitat: rich alluvial forests; swamps; bottomland woods & thickets

Deciduous. Beaded fertile plumes persist through winter. Spreads through underground runners, so give it room.

Osmundastrum cinnamomeum • Cinnamon Fern

- 6 feet
- Thick spore-bearing spikes that turn from green to chocolate brown appear April–May
- Full sun to full shade
- Muddy, sandy, clay or loam, acidic soils
- Natural habitat: boggy areas, shaded ledges

Deciduous. Bristly root crown, called osmunda fiber, used as a potting medium for orchids.

Dramatic landscape accent. The fuzz that covers the young fiddleheads is a favorite nesting material for birds.

Polystichum acrostichoides • Christmas Fern

- Fronds 1–3 feet, taller when fertile; non-flowering/reproduces by spores
- Part shade to full shade
- Moist, well-drained, humus-rich, sandy, acidic soils; does not tolerate standing water
- Natural habitat: rocky woods, stream banks, swamps, thickets

An evergreen, Christmas fern got its name because it stays green right through the holiday season.

Good, evergreen border or adaptable accent plant.

Clematis virginiana • Virgin's Bower

- 12–15 feet
- Clusters of creamy white flowers turning into showy sprays of silky seeds that glisten with backlighting in July–September
- Full sun to full shade
- Moist to dry, rich soils
- Natural habitat: woods, thickets, stream banks

Attracts hummingbirds and butterflies.

Lacking tendrils, this deciduous vine supports itself by means of twisted stems, or petioles, that wrap around other plants. These fast-growing stems can grow 20 feet in one year. They may be pruned at any time during the growing season.

Gelsemium sempervirens • Yellow Jessamine

- 10–20 feet
- Yellow tublular flowers in January–May, December
- Full sun to part shade; best in sun
- Moist, well-drained, humus-rich, sandy or clay soils; pH adaptable
- Natural habitat: thickets, woods, fence rows, hammocks

Aromatic, showy evergreen vine. Its flowers attract hummingbirds and swallowtail butterflies. Heat and cold tolerant.

Adaptable and tenacious evergreen, with no serious disease or insect problems. All parts of this plant are toxic.

Lonicera sempervirens • Trumpet or Coral Honeysuckle

- 3–20 feet
- Red outer, sometimes yellow inner, tubular flowers in March–June followed by bright-red berries
- Full sun (best) to part shade
- Sandy and clay, but rich, moist soils preferred, lime and acidic soil okay; tolerates poor drainage for short periods
- Natural habitat: inhabits wide range of natural habitats

Frequently visited by hummingbirds and butterflies. Fruits attract Purple Finch, Goldfinch, Hermit Thrush, and American Robin.

This beautiful semi-evergreen vine is great for arbors. The species name refers to its evergreen habit. Deer resistant.

Wisteria frutescens • American Wisteria

- 25–30 feet, deciduous
- Lilac or bluish purple in May–June
- Full sun to full shade
- Moist, rich, sandy, loam or clay, neutral to slightly acid soils; prefers a good loamy soil in a sunny south or southwest facing position
- Natural habitat: woods, river banks, upland thickets

Attracts butterflies. Larval host to Zarucco Duskywing Skipper (*Erynnis zarucco*).

Large, fragrant, drooping clusters of flowers—6–9 inches long—appear only on new wood and after the plant has leafed out, a difference from the popular Asian species. This species also is less aggressive than the similar Asian species.

Shrubs

Amorpha fruticosa ● False Indigo Bush

- 6–13 feet
- Brilliant purple flowers on 3–6 inch spikes in April–June
- Full sun to part shade
- Tolerates wet soils
- Natural habitat: stream banks, bogs, pond areas

Deciduous. Contains some indigo pigment that can be used to make blue dye.

Larval host and nectar source for many butterflies and native bees. Can form dense thickets and provide cover for wildlife. Deer resistant.

Aronia arbutifolia ● Red Chokeberry, Red Chokecherry

- 6 –12 feet
- Many clusters of small, white flowers in early May followed by bright red berries that persist into December
- Tolerates dry to wet, almost swampy conditions
- Full sun
- Natural habitat: wet and dry thickets

One of the best shrubs for brilliant fall color-intense, shiny, raspberry to crimson, with purplish highlights. Can also have some orange mixed in, especially in shady sites

Nectar source for pollinators. Berries persist through much of the winter, and are occasionally eaten by songbirds.

Cephalanthus occidentalis ● Buttonbush, Button Willow

- 6–12 feet spreading, multi-branched evergreen shrub or sometimes small tree
- Balls of long-lasting white or pale-pink flowers resembling pincushions in June–September, and button-like balls of fruit; rounded masses of nutlets that persist through the winter
- Full sun to part shade
- Wet, sandy and clay soils; poor drainage or standing water okay
- Natural habitat: shorelines, swamps

Ducks and other water birds and shorebirds consume the seeds, and its nectar attracts bees and butterflies.

Euonymus americanus ● Strawberry-bush, Heart's-a-*bustin'*

- 6–10 foot narrow, deciduous shrub, which often spreads into mounded clumps
- Spike-like, upright clusters of fragrant white flowers in July–August
- Full sun to full shade
- Wet to moist, acidic soils
- Natural habitat: forests and thickets

Leaves turn dull yellow to orange in fall. Its dry fruiting capsules remain long after flowering and help identify this plant in winter. Deer love it.

Versatile, carefree shrub that is remarkably free of any disease, insect or physiological problems.

Gaultheria procumbens • Wintergreen, Teaberry

Bright red, showy berries that persist through winter make this plant a unique groundcover with four-season interest.

- 2–6 inches evergreen subshrub, useful as a ground-cover
- Small, bell-shaped, white to pink flowers in June–August
- Part shade to full shade
- Poor, well-drained soil
- Natural habitat: forests, pine woodlands, bogs

Oblong leathery leaves have a distinct wintergreen scent when crushed. This species has lovely winter color. Low-growing habit and creeping underground stems form small colonies of plants. Leaves may be browsed.

Hamamelis virginiana • Witch Hazel

Birds eat the fruits (small brown capsules). The species has brillant fall color and flowering.

- 10–15 (sometimes up to 30 feet) multi-trunked shrub with large, crooked, spreading branches forming an irregular, open crown
- Yellow fragrant flowers with strap-like, crumpled petals appear in the fall, persisting for some time after leaf drop in September–December; lettuce-green, deciduous leaves maintain a rich consistency into fall when they turn brilliant gold
- Full sun to full shade
- Moist, sandy, clay, acidic and calcareous soils
- Natural habitat: moist woods, thickets, bottomlands

The source of the astringent extract.

Ilex verticillata • Common Winterberry

Birds are readily attracted to them. Winterberry tolerates poor drainage and is quite winter-hardy.

- 3–10 feet globular, upright, medium-sized deciduous shrub, male and female spearate
- Inconspicuous flowers in April–July; dense clusters of bright red berries that remain throughout winter
- Full sun to full shade
- Moist, sandy, clay, acidic soils
- Natural habitat: swamps, thickets, low woods, along ponds and streams

Leaves are not shaped with sharp teeth like other hollies and are not evergreen. Berries are quite showy and will persist throughout the winter and often into early spring, providing considerable impact and interest to the winter landscape.

Itea virginica • Virginia-willow, Virginia Sweetspire

Flowers and fall foliage make this an attractive ornamental. Can grow in areas of poor drainage.

- 3–8 feet mound-shaped, slender-branched, deciduous shrub
- Small, white flowers bloom in April–June in 4 inch spires that droop with the arching branches; flowers open from base to tip so that the plant appears to bloom for a long time; leaves turn red to purple in fall and persist well into the winter
- Full sun, part shade; blooms best, and has better fall color, if it receives full sun at least part of the day
- Moist, sandy, loam, clay, acid soils
- Natural habitat: wooded stream banks

Very effective in massed plantings and also good as a container plant.

Shrubs

Kalmia Latifolia ● Mountain Laurel

- 5–15 feet broadleaf thicket-forming evergreen shrub, sometimes a small tree with short, crooked trunk; stout, spreading branches
- Bell-shaped, white to pink flowers with deep rose spots inside occur in large flat-topped clusters in June–July; glossy leaves change from light-green to dark-green to purple throughout year
- Part shade
- Cool, moist, rocky or sandy, acidic soils
- Natural habitat: woods, pastures, meadows, slopes

The stamens of the flowers have an odd, springlike mechanism which spreads pollen when tripped by a bee.

Mountain Laurel is one of the most beautiful native flowering shrubs. Needs afternoon shade, good drainage and the right setting to thrive. Poisonous plant parts.

Lindera benzoin ● Northern Spicebush, Spicebush

- 6–12 foot single- or few-stemmed, fast-growing, deciduous shrub
- Dense clusters of tiny, pale yellow flowers bloom in April ; glossy red fruit in September–October
- Full sun to full shade
- Moist, sandy, well-drained soils (better form, more berries with sun)

A larval host for the Eastern Tiger Swallowtail (*Papilio glaucus*) and Spicebush Swallowtail (*Papilio troilus*) butterflies. The fruits are a special favorite of wood thrushes.

Fruit and foliage are aromatic. Leaves turn a golden—yellow in fall with some sun. These species has separate male and female plants. Deer avoid this species.

Physocarpus opulifolius ● Ninebark

- 3–10 feet deciduous shrub with recurved branches. Twigs are brown to yellowish; bark brown to orangish, peeling into thin strips or broader sheets on larger trunks
- Clusters of small white flowers May–June
- Full sun to full shade
- Moist to wet, mineral-rich (including calcium) soils
- Natural habitat: rocky open woodlands, cliffs, outcrops, rocky river shores, stream banks

Value to songbirds, waterfowl, small mammals, and beneficial insects. Special value to native bees and honey bees.

The ability to grow quickly in harsh conditions makes this shrub especially suitable for erosion control on banks. Disease resistant and drought tolerant.

Rhododendron periclymenoides ● Wild Azalea, Pinxter Azalea

- 6–12 feet shrub with picturesque, horizontal branching
- Funnel-shaped, pink or white flowers with protruding stamens occur in large fragrant clusters, appearing before or with the leaves in March–May
- Part shade
- Well-drained, sandy soil
- Natural habitat: woods, bogs, riparian

Especially showy flowers. Nectar source for butterflies and hummingbirds.

This species is relatively tolerant of dry sites, and needs good drainage. The species name, Latin for naked-flowered, refers to the fact that the flowers often appear before its leaves are fully expanded.

Rosa carolina • Carolina Rose, Pasture Rose

- 1–3 feet freely suckering shrub
- Pink flowers from thorny stems—fragrant, 2 inch wide, 5-petaled—occur singly or in small clusters in May–June; fruit, a hip, turns from dark green to bright red as it ripens
- Full sun to part shade
- Dry to wet, acidic soils
- Natural habitat: sandy, open woods; thickets, roadsides, disturbed areas

Attracts birds. Special value to bumble bees and other native bees: a plant that native bees nest beneath, within, or harvest parts from to construct their nests. Drought tolerant.

Hips develop lovely red color. Although one of the most shade-tolerant roses, this species grows best in open sunny locations.

Sambucus nigra ssp. canadensis • Common or Black Elder

- 6–12 feet loose and graceful, deciduous shrub with both woody and herbaceous branches
- White flowers in May–July in broad, flat, conspicuous clusters up to 10 inches or more in diameter; berrylike fruit is dark purple when ripe in July–September
- Part shade
- Tolerates a wide variety of wet to dry soils but prefers rich, moist, slightly acid soil
- Natural habitat: bogs, ditches, fields

Birds are attracted to the purple-black fruit and spread the seeds.

The genus name comes from Greek sambuce, an ancient musical instrument.

Vaccinium pallidum • Early Lowbush Blueberry

- 1.5–2 feet shrub with green bark, light to dark brown twigs, alternate, elliptic leaves, dark green above, paler beneath
- Green-white to pink flowers in March–May; berries are dark blue to black and mature June to July
- Full sun to full shade
- Moist or dry, loam, sandy soils
- Natural habitat: many forest and soil types

Sweet berries have a high wildlife value, as do flowers and leaves.

Blueberries prefer acidic soils with sandy or rocky material.

Viburnum acerifolium • Maple-leaved Viburnum, Dockmackie

- 4–6 feet deciduous shrub with multiple, erect-arching stems in a loose, round habit
- White, flat-topped flower clusters in May–July are followed by dark blue berries; dark-green foliage turns yellow to wine-red in fall
- Full sun to full shade
- Dry to wet, acidic soils and sands
- Natural habitat: woods and thickets

Flood, insect and disease tolerant. Berries attract Eastern Bluebird, Northern flicker, Gray Catbird, and American Robin. Larval host for Spring Azure.

Most soil-adaptable of the viburnums.

Trees

Amelanchier canadensis • Canada Serviceberry

- 15–30 feet with multiple, upright stems forming a dense shrub with a narrow crown and many small-diameter branches or, if properly pruned, a small tree
- White flowers in March–May followed by red to purple fruit in June–August; brilliant fall color display ranging from yellow and orange to red
- Full sun to part shade
- Moist, well-drained acidic soils
- Natural habitat: wood borders; moist, upland woods

Good fall color commends serviceberry for multi-season interest and smaller gardens.

At least 40 bird species (e.g. Cardinals, Cedar Waxwing, and Towhees) eat the fruit of *Amelanchier* species.

Asimina triloba • Pawpaw, Common Pawpaw

- 10–40 feet tree or multi-stemed shrub
- Purple, six-petaled flowers are borne singly in leaf axils in April–May before leaf emergence; large, cylindric, dark-green or yellow fruit follows; yellow fall foliage
- Full sun to full shade
- Rich, moist, slightly acid soils
- Natural habitat: ditches, ravines, depressions, flood plains, bottomland

A good understory tree. First recorded by the DeSoto expedition in the lower Mississippi Valley in 1541. The name Common Pawpaw is from the Arawakan name of Papaya, an unrelated tropical American fruit.

A larval host for Zebra Swallowtail (*Eurytides marcellus*) and Pawpaw Sphinx (*Dolba hyloeus*). Aromatic tree with no serious disease or insect problems.

Betula nigra • River Birch

- Up to 50 feet gracefully branched tree, can reach 90 feet with irregular, spreading crown; produces a cone fruit; satiny, silver bark peels to reveal a cinnamon brown trunk beneath; fall foliage is yellow
- Part shade
- Sandy or clay, moist, acidic soils; well-suited to periodically wet areas
- Natural habitat: flood plains, bottomland, ditches, ravines, depressions, swamps, stream and river banks to mid-slope

This is the southernmost New World birch and the only birch that occurs at low altitudes in the southeastern US.

Fast growing and long-lived. Its ability to thrive on moist sites makes it useful for erosion control.

Carpinus caroliniana • American Hornbeam, Ironwood

- 35–50 feet with a wide-spreading crown uniformly oval or very irregular and graceful, drooping branches and slender trunk, pale gray, smooth and sinewy with twisting, muscle-like bulges; shiny, bluish-green, deciduous leaves become scarlet-orange in the fall
- Hanging fruit, appearing March–April, is papery in texture
- Part shade to full shade
- Moist, well-drained soils
- Natural habitat: upland and floodplain forests, alluvial swamps, stream banks

The word `hornbeam' is from the words horn (for toughness) and beam (for tree) and refers to the very hard tough wood.

Larval host to Eastern Tiger Swallowtail (*Papilio glaucus*), Striped Hairstreak (*Satyrium liparops*), Red-spotted Purple (*Limenitis arthemis*). Birds and mammals feed on fruit.

Diospyros virginiana • Common Persimmon

- 15 up to 100 feet with a spreading crown and pendulous branches; large, oval, mature leaves usually become yellow-green in fall
- Bell-shaped, yellow flowers in April–June; large, sweet, orange fruit in autumn
- Part shade
- Moist, rich, sandy, loam or clay, acidic or calcareous soils
- Natural habitat: dry woods, old fields and clearings

Valued for fruit. Attracts wildlife and is larval host to the Luna moth (*Actias luna*).

The word 'Persimmon' is of Algonquian origin. Diospyros means 'fruit of the god Zeus.' With age, bark becomes thick, dark gray to almost black, and breaks into scaly, squarish blocks.

Ilex opaca • American Holly, Christmas Holly

- 25 to 60 feet evergreen has stout, stiff branches that form a pyramidal shape and bear dark-green, non-glossy, spine-tipped leaves; new growth pushes off the old leaves in spring
- Bright red berries occur on female plants
- Part shade
- Moist, well-drained, sandy, acidic soils
- Natural habitat: primarily an understory woodland tree

In late winter, many kinds of songbirds eat the bitter berries of this slow-growing but long-lived tree.

A popular Christmas decoration, the wood also is especially suited for inlays in cabinetwork, and carvings, can be dyed. Shorter, multi-trunked form may grow in lower-light situations.

Juniperus virginiana • Eastern Redcedar

- 30–40 feet (can reach 90 feet) evergreen, aromatic tree with trunk often angled and buttressed at base; pyramidal when young, mature form is quite variable; fragrant, scale-like foliage can be coarse or fine-cut, and varies in color from gray, blue- to dark-green; soft, silvery bark covers the single trunk
- Pale blue fruits occur on female plants
- Full sun to part shade
- All soils (adaptable)
- Natural habitat: any open spaces

Juicy berries consumed by wildlife, including the Cedar Waxwing, named for this tree. Resistant to extremes of drought, heat, and cold.

First observed at Roanoke Island, VA, in 1564, this tree was prized by the colonists for building furniture, rail fences, and log cabins.

Magnolia virginiana • Sweetbay Magnolia

- 12–30 feet (occasionally growing to 50 feet) evergreen tree with pale grey bark and multiple, slender, upright trunks bearing horizontal branches; aromatic, spicy foliage
- Solitary, velvety-white, fragrant flowers in May - July followed by dark red aggregate fruits exposing bright red seeds
- Part shade
- Moist, rich, sandy, loam, acidic soils
- Natural habitat: open woodlands, swamps

Attractive, aromatic, showy ornamental. Seeds are a good source of food for birds in fall.

Introduced into European gardens as early as 1688. Called `Beavertree' by colonists who caught beavers in traps baited with the fleshy roots.

Trees

Nyssa sylvatica ● Blackgum, Black Tupelo

Handsome ornamental and shade tree. Juicy fruit is consumed by many birds and mammals.

- 30–60 feet variable-shaped, deciduous tree with horizontally spreading branches; bottle-shaped trunk forms if grown in shallow standing water; smooth, waxy, dark-green summer foliage changes to fluorescent yellow, orange, scarlet and purple in fall
- Berries are small and blue
- Full sun to full shade
- Various moist, acidic, gravelly soils
- Natural habitat: wide-ranging, found in a variety of habitats

These species is one of the first plants to color in fall. These species tolerates drier sites and also tolerates poor drainage.

Quercus alba ● White Oak

One of the most important species in the white oak group. Acorns are an important food source for a wide variety of mammals and birds. Supports hundreds of species of caterpillars. Very rot resistant. Good yard tree with few disease or pest problems.

- Up to 120 feet with widespreading branches and a wide rounded crown, the trunk irregularly divided into spreading, often horizontal, stout branches; round-lobed leaves turn burgundy in fall, and dried leaves remain into winter
- Brown catkins appear just before or with the appearance of new leaves from March–April; acorns up to 3/4 inch long, sometimes to 1 1/4 inches, the cup without the fringe found in Bur Oak (*Quercus macrocarpa*).
- Full sun to part shade
- Moist to dry soils
- Natural Habitat: woodlands and old fields

Pinus echinata ● Shortleaf Pine

Provides cover and nesting sites; seeds for small mammals and birds. Attracts butterflies; larval host to Elfin butterfly (*Microtia elva*).

- 50–130 feet large tree; short spreading branches form a pyramid that loosens with age to form a broad, open crown; bright green, 5 inch needles grow in tufts; trunks of larger trees have broad, flat, reddish-brown plates
- Yellow cones in March–April
- Part shade
- Moist, well-drained to dry soils
- Natural habitat: forests, old fields, rocky woodlands

The most widely distributed of the southern yellow pines. Native in 21 southeastern states.

Taxodium distichum ● Baldcypress

Brilliant red fall color. Larval host for Baldcypress Sphinx (*Isoparce cupressi*).

- Up to 100 feet conifer, with small deciduous needles and a thin, dark to silvery brown bark that shreds lengthwise; cones are 1 inch diameter globes
- Full sun to light shade
- Wet to dry soils
- Natural habitat: swamps, streambanks

Although Baldcypress is usually found in swamps, this is an adaptation to low oxygen not water need, so it does very well in dry compacted urban soils. A centerpiece tree with a color and texture that set it apart from other landscape trees. `Bald' refers to the deciduous nature uncommon among other conifers.

Northern Virginia Native Plant Demonstration Gardens

How Will NoVA Natives Look in My Garden?

Visiting a demonstration garden is a good way to get inspiration and guidance on how to incorporate new plants into your landscape.

There are many different types of demonstration gardens in our area; you will find gardens focused on pollinators, rainwater, urban settings, and more. A computer search will show you many options. The Audubon Society of Northern Virginia (ASNV) keeps a comprehensive listing on their website; search for "Local Northern Virginia Audubon at Home Demonstration Sites." You will find there regional, city and county parks hosting demonstration areas. You can also visit the many schoolyard gardens used for teaching the value of these plants' ecosystem services.

In Vienna, **Meadowlark Botanical Gardens** has extensive woodland and meadow plantings and signage. Fairfax County's **Green Spring Gardens** also has a native plant trail and hosts the local chapter of the Virginia Native Plant Society's propagation beds. Arlington's **Potomac Overlook Regional Park**, and the **Bon Air Park** sunny and shady gardens maintained by Master Naturalists and Master Gardeners respectively, offer year-round interest. **The Nature Conservancy Headquarters** near Ballston offers a native plant garden in a more urban setting. Prince William claims **Merrimac Farm's Wildlife Management Area**, while the Loudoun Wildlife Conservancy promotes many **Monarch Waystations** throughout the county and maintains a valuable website. And of course our **State Arboretum**, Blandy, in Clark County, has woodland, meadow and wetland plantings as well as extensive native tree offerings, and much more.

Happy visiting!

For more information about Northern Virginia's growing number of demonstration gardens, visit the Plant NoVA Natives website at www.plantnovanatives.org.

Kids and Native Plants

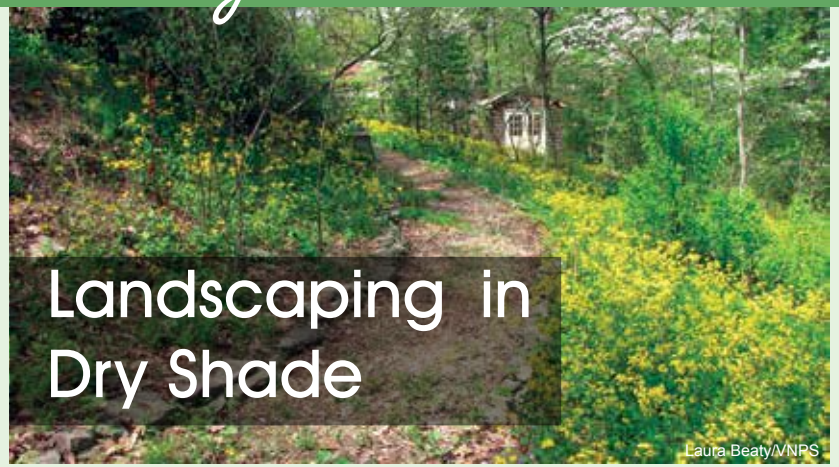

Donnie Biggs, Fairfax Co. Public Schools


Bellview Elementary School

Many public and private schools are building wildlife habitats on school grounds to offer students a rich, hands-on experience with native Virginia plants and animals. Fairfax County Public Schools, for example, have over 80 schools with wildlife habitat and the number is growing each year. These outdoor classrooms give students the opportunity to engage in authentic, problem-based learning efforts. Students work together to help plan, construct, and maintain the wildlife habitat, and see that their everyday actions can make a difference in the health of the environment.


Centreville Elementary School

Schools can be an agent of change by demonstrating sustainable landscaping techniques on their properties and educating their students and surrounding communities about the importance of providing wildlife habitat.



Finding plants that will thrive in dry shade can be challenging. Spring ephemerals (plants that flower and set seed before the tree canopy fills in and then go dormant) are good choices. The lists below contain many attractive species that can be grown in dry, shady areas.

Perennials (Forbs)

Antennaria plantaginifolia • Plantain-leaved Pussytoes
Chrysogonum virginianum • Green and Gold
Conoclinium coelestinum • Mistflower, Ageratum
Dicentra eximia • Bleeding Heart
Erigeron pulchellus • Robin's Plantain
Eurybia divaricata • White Wood Aster
Goodyera pubescens • Downy Rattlesnake-plantain
Helianthus divaricatus • Woodland Sunflower, Spreading Sunflower
Heuchera americana • American Alumroot
Mitchella repans • Partridgeberry
Packera aurea • Golden or Heartleaf Ragwort
Polygonatum biflorum • Solomon's Seal
Pycnanthemum incanum • Hoary Mountain Mint

Ferns

Dryopteris carthusiana • Spinulose Woodfern
Dryopteris marginalis • Marginal Woodfern, Evergreen Shieldfern

Vines

Clematis virginiana • Virgin's Bower
Parthenocissus quinquefolia • Virginia Creeper
Wisteria frutescens • American Wisteria

Shrubs

Cornus racemosa • Gray Dogwood
Ceanothus americanus • New Jersey Tea, Redroot
Gaultheria procumbens • Wintergreen, Teaberry
Hamamelis virginiana • Witch Hazel
Hydrangea arborescens • Wild Hydrangea, Smooth Hydrangea
Hypericum prolificum • Shrubby St. John's Wort
Lindera benzoin • Spicebush
Staphylea trifolia • Bladdernut
Vaccinium corymbosum • Highbush Blueberry
Vaccinium pallidum • Early Lowbush Blueberry
Viburnum acerifolium • Maple-leaved Viburnum

Trees

Amelanchier arborea • Downy Serviceberry
Carpinus caroliniana • American Hornbeam, Ironwood
Cercis canadensis • Eastern Redbud
Chionanthus virginicus • Fringe Tree, Old Man's Beard
Quercus prinus • Chestnut Oak, Rock Chestnut Oak

Landscaping in Street Side Places

Street side environments experience dry, harsh conditions and are exposed to pollutants, dust, spray, salt, and compacted soil. Soil pH can also be affected through leaching from concrete curbs and sidewalks. The best street trees happen to also be marsh species adapted to an environment with saturated soil and low oxygen. Consider the following species for street side environments.

Perennials (Forbs)

Hibiscus moscheutos, Swamp Rose-mallow • Eastern Rose-mallow, Crimson-eyed Rose-mallow
Oenothera biennis • Common Evening Primrose
Opuntia humifusa • Eastern Prickly-pear

Grasses/Ferns

Panicum virgatum • Switchgrass
Schizachyrium scoparium (Andropogon scoparius) • Little Bluestem
Thelypteris palustris • Marsh Fern

Shrubs

Aronia arbutifolia (Photinia pyrifolia) • Red Chokeberry
Aronia melanocarpa (Photinia melanocarpa) • Black Chokeberry
Cephalanthus occidentalis • Buttonbush
Gaylussacia baccata • Black Huckleberry
Lindera benzoin • Spicebush
Rosa carolina • Carolina Rose, Pasture Rose
Sambucus canadensis • Common Elderberry, American Elder
Vaccinium corymbosum • Highbush Blueberry, Northern Highbush Blueberry
Viburnum dentatum • Arrow-wood, Southern Arrow-wood Viburnum

Small Trees

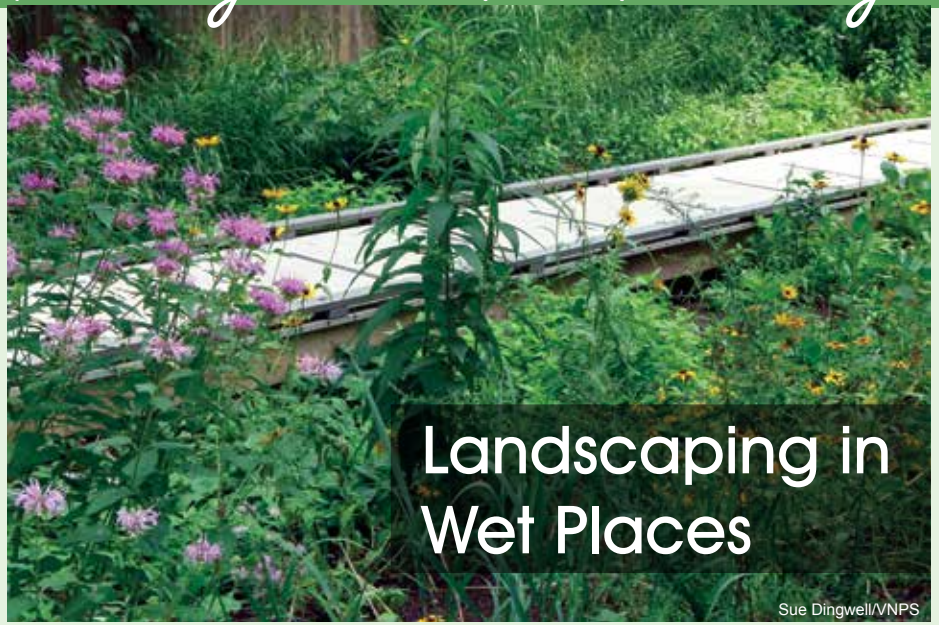
Amelanchier arborea • Downy Serviceberry
Amelanchier canadensis • Canada Serviceberry
Rhus typhina (R. hirta) • Staghorn Sumac

Tall Trees

Celtis occidentalis • Common Hackberry
Juniperus virginiana var. virginiana • Eastern Red Cedar
Nyssa sylvatica • Sour Gum, Black Gum
Pinus rigida • Pitch Pine
Quercus alba • White Oak
Quercus bicolor • Swamp White Oak
Quercus palustris • Pin Oak
Quercus rubra • Northern Red Oak
Quercus stellata • Post Oak
Quercus velutina • Black Oak
Taxodium distichum • Bald Cypress

***Yucca filamentosa**, Common Yucca, often can be seen streetside.*

The Right Plants in the Right Place



Not all plants will survive in wet and saturated soils. When soils are saturated they are oxygen poor, which affects both the microbial community and soil chemistry as well as depriving plants of oxygen needed to process energy. The plants that grow in wet areas in the wild are adapted to these conditions and should grow well in your wet site. The following list of plants are species that will tolerate saturated soils.

Perennials (Forbs)

Arisaema triphyllum • Jack-in-the-Pulpit
Asclepias incarnata • Swamp Milkweed
Caltha palustris • Marsh Marigold, Cowslip
Chelone glabra • White Turtlehead
Eupatorium perfoliatum • Common Boneset
Helianthus angustifolius • Narrow-leaved or Swamp Sunflower
Lobelia cardinalis • Cardinal Flower
Mertensia virginica • Virginia Bluebell
Monarda didyma • Scarlet Beebalm, Oswego Tea
Packera aurea • Golden Ragwort
Phlox maculata • Meadow phlox, Wild Sweet William
Rudbeckia laciniata • Cut-leaf or Green-headed Coneflower
Spiranthes cernua • Nodding Ladies' Tresses
Symphyotrichum (Aster) novae-angliae, novi-belgii • New England and New York Aster
Thalictrum pubescens • Common Tall Meadow Rue

Perennials (Forbs) con't

Verbena hastata • Common or Swamp Verbena
Vernonia noveboracensis • New York Ironweed
Veronicastrum virginicum • Culver's-root

Grasses

Andropogon virginicus • Broomsedge, Sedge Grass
Carex stricta • Tussock or Upright Sedge
Dichanthelium clandestinum • Deer-Tongue Grass
Panicum virgatum • Switchgrass
Saccharum giganteum • Giant or Sugarcane Plumegrass

Ferns

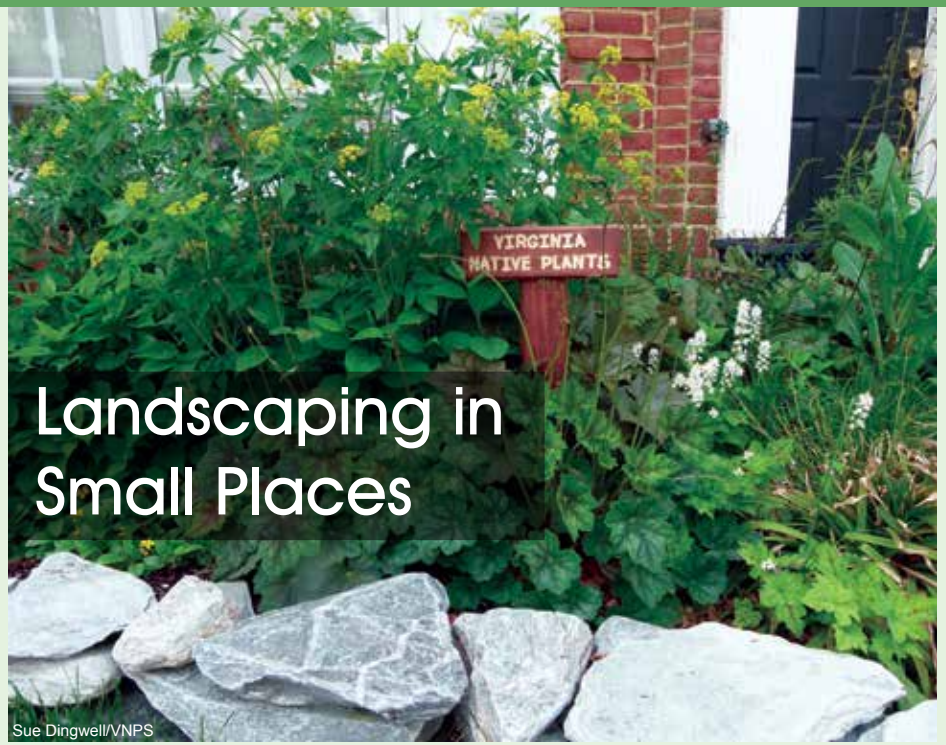
Dryopteris carthusiana, intermedia • Spinulose and Intermediate Wood Fern
Onoclea sensibilis • Sensitive Fern
Osmundastrum cinnamomeum • Cinnamon Fern
Osmunda spectabilis • Royal Fern
Pteridium aquilinum • Bracken Fern
Thelypteris palustris • Marsh Fern

Shrubs

Alnus serrulata • Smooth or Hazel Alder
Aronia melanocarpa • Black Chokeberry
Cephalanthus occidentalis • Buttonbush
Clethra alnifolia • Sweet Pepperbush, Summersweet
Cornus amomum • Silky Dogwood
Hypericum densiflorum • Bushy St. Johnswort
Ilex verticillata • Winterberry Holly, Black Alder
Itea virginica • Virginia Sweetspire
Morella (Myrica) spp. • Southern and Northern Wax Myrtle or Bayberry
Physocarpus opulifolius • Ninebark
Sambucus canadensis • Common Elderberry
Rhododendron periclymenoides & viscosum • Pinxterbloom and Swamp Azalea
Rosa palustris • Swamp Rose
Viburnum dentatum, nudum & prunifolium • Arrowwood, Possum-haw and Blackhaw Viburnum

Trees

Betula nigra • River Birch
Carpinus caroliniana • American Hornbeam, Ironwood
Liquidambar styraciflua • Sweetgum
Magnolia virginiana • Sweetbay or Swamp Magnolia
Salix nigra • Black Willow



Sue Dingwell/VNPS

Landscaping in Small Places

Native plant gardens can also be grown in small spaces such as a townhouse yard or apartment. As with any other situation, small space gardening requires that you acknowledge the amount of space you and the plant need. In considering the space for the plant, don't forget the roots. On apartment balconies a diverse mix of potted forbs, vines, grasses and ferns can provide pollinator habitat. Mixing spring, summer and fall blooming plants in a planter or group of planters can provide beauty and color throughout the growing season.

Perennials (Forbs)

Aquilegia canadensis • Canadian Wild Columbine
Actaea racemosa • Black Cohosh
Asarum canadense • Wild Ginger
Asclepias tuberosa • Butterfly Weed
Chrysogonum virginicum • Green and Gold

Perennials (Forbs) con't

Coreopsis verticillata • Threadleaf Tickseed
Dicentra eximia • Fringed Bleeding Heart
Eurybia (Aster) divaricata • White Wood Aster
Geranium maculatum • Wild Geranium
Heuchera americana • American Alumroot
Lobelia cardinalis • Cardinal Flower
Lobelia siphilitica • Great Blue Lobelia
Maianthemum racemosum • Solomon's Plume
Penstemon digitalis • Beardtounge Penstemon
Phlox divaricata • Wild Blue Phlox
Phlox stolonifera • Creeping Phlox
Polygonatum biflorum • Solomon's Seal
Pycnanthemum tenuifolium • Narrow-leaved Mountain Mint
Salvia lyrata • Lyre-leaf Sage
Sedum ternatum • Wild Stonecrop
Sisyrinchium angustifolium • Blue-eyed Grass
Tiarella cordifolia • Foamflower

Grasses

Elymus hystrix • Bottlebrush Grass
Carex pennsylvanica • Pennsylvania Sedge
Carex stricta • Tussock or upright Sedge
Schizachyrium scoparuim • Little Bluestem

Ferns

Adiantum pedatum • Maidenhair Fern
Asplenium platyneuron • Ebony Spleenwort
Athyrium asplenoides • Southern Lady Fern
Dryopteris marginalis • Evergreen Shield or Wood Fern
Polystichum acrostichoides • Christmas Fern

Vines

Lonicera sempervirens • Coral Honeysuckle
Passiflora lutea • Yellow Passionflower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Wisteria frutescens, *American Wisteria, embellishes a patio or porch railing.*


Sue Dingwell.VNPS

Itea Virginica, *Sweetspire, makes a great container plant.*

Planting to Attract Pollinators & Birds

Help Bring Life to Your Garden

Native plants attract a variety of birds, butterflies, and other wildlife by providing diverse habitats and food sources. Native plants feed the insects that are the base of the food web, and insects are especially important as food for young songbirds. Native plants also feed pollinators. We may not notice the hummingbirds, bats, bees, beetles, butterflies, and flies that carry pollen from one plant to another as they collect nectar; yet without them, wildlife would have fewer nutritious berries and seeds, and we would miss many fruits, vegetables, and nuts. By planting a diverse palette of native plants, we invite not only the plant-eating insects, but also their predators as well as pollinators, seed dispersers and recyclers, which make a garden function like a system. *Because our native plants and animals have evolved together, they support each other, and we enjoy the beauty and fruits of their labor.*

With a simple, but profound, observation that nothing was eating the multi-flora rose he was clearing from his property, Dr. Douglas Tallamy launched a line of research that has become a cornerstone of the native plant movement. He has shown that not all plants are of equal value to wildlife and that native wildlife prefers native plants. For example, native oaks support 532 species of native caterpillars, while the non-native butterfly bush supports only one. Caterpillars are important because they are the primary food source for nestlings of 96% of all bird species. This insight led to a call embodied in the title of his book, *Bringing Nature Home*, to share our suburban landscape with wildlife by planting native plants.

While this enjoinder to share our space may seem novel to some, it is actually an expression of Aldo Leopold's Land Ethic. In his essay, "The Land Ethic," Leopold asserts that "a land ethic changes the role of Homo sapiens from conqueror of the land-community to plain member and citizen of it." Given Tallamy's findings, it is clear that using native plants in your landscape is one aspect of the land ethic. But notice that Leopold promotes humans to membership in the land, which means that part of the wildlife you are landscaping for is you.

The use of native plants in landscaping should not and does not preclude designing a landscape that meets your needs. Landscaping for wildlife should be a mix of human and natural design concepts. The overall plan should satisfy your needs–a place for the kids and dog to play; a quiet


Sue Dingwell/VNPS


Laura Beaty/VNPS


Laura Beaty/VNPS


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place to sit and enjoy your yard–and should follow human design concepts. But, the execution of the plan should be informed by nature's design concepts: using plants in layers; avoiding straight lines; and, smoothing forest into field into wetland. Above all: use a diverse array of native plants.

One important aspect of landscaping for wildlife is a change in the status of turf grass. It is not that turf no longer has a place in your landscape, but it should no longer be considered the default landscape. Each square foot of turf should be examined and subjected to the question "Why?" Sometimes turf is the right cover, but that should be decided only after consideration of native plant alternatives like Pennsylvania Sedge, moss, or other materials like mulch or stepping stones.

When landscaping for wildlife, use a wide array of native plants and don't forget you are part of the wildlife using the landscape.

Invasives of Particular Concern in Northern Virginia

Invasive, non-native plants do not provide the same ecosystem services as natives and have a harmful effect on our environment, not only in the suburban community but also in our forests, parks, and other natural areas.

Please do not plant these non-native, invasive species and consider removing them from the landscape. Volunteers and natural resource management staff spend many hours and resources to mitigate the spread and control the consequences of these and other invasive species. Although there are many non-native plant species that invade our natural areas, the plants listed below are particularly problematic because they are still available in the trade, and sold and planted throughout the region. Consider planting one of the natives listed here as an alternative to these plants.

***Acer platanoides* - Norway Maple**
NoVA Native Alternatives: *Acer rubrum*, Red Maple; *Quercus spp.*, Oaks; *Tilia americana*, Basswood

***Akebia quinata* - Chocolate Vine**
NoVA Native Alternatives: *Gelsemium sempervirens*, Carolina or Yellow Jessamine; *Lonicera sempervirens*, Trumpet or Coral Honeysuckle; *Bignonia capreolata*, Crossvine

***Ampelopsis brevipendiculata Elegans* – Porcelain-Berry**
NoVA Native Alternatives: See alternatives listed above for *Akebia*

Berberis thunbergii - **Japanese Barberry**
NoVA Native Alternatives: *Ilex glabra*, Inkberry Holly; *Ilex verticillata*, Winterberry Holly; *Viburnum dentatum*, Arrowwood Viburnum; *Itea virginica*, Virginia Sweetspire

***Phyllostachys aurea* - Golden Bamboo, Fishpole Bamboo, Walking Stick Bamboo**
NoVA Native Alternatives: *Juniperus virginiana,* Eastern Red Cedar

Humulus lupulus aureus - **Golden Hops Vine**
NoVA Native Alternatives: See alternatives listed above for *Ampelopsis*

Liriope muscari - **Liriope**
NoVA Native Alternatives: *Carex pensylvanica* and *flaccosperma*, Pennsylvania and Blue Wood Sedge; *Elymus virginicus*, Virginia Wildrye and *Elymus hystrix*, Bottlebrush Grass

***Miscanthus sinensis* - Miscanthus**
NoVA Native Alternatives: *Schizachyrium scoparium*, Little Bluestem; *Sorghastrum nutans*, Indian Grass

English Ivy will outcompete almost any herbaceous species and create large monoculture mats in the yard and forest. It is an aggressive climbing vine and can reach the canopy and cause premature tree death. Invasive insects, such as the Gypsy Mth are able to hide from predators under the leaves; dampness encourages mosquitos to breed in it. Avoid all species of Hedera including Hedera helix varieties and Hedera hibernica - Atlantic Ivy.

***Pyrus calleryana* - Bradford Pear**
NoVA Native Alternatives: *Amelanchier spp.*, serviceberries; *Crataegus spp.,* hawthorns*; Cercis canadensis,* Redbud; *Cornus florida*, Dogwood

***Hedera helix* - English Ivy**
NoVA Native Alternatives: *Parthenocissus quinquefolia* - Virginia Creeper; *Packera aurea* - Golden Ragwort; Ferns; Creeping Phloxes; *Asarum canadense*, Wild Ginger

***Euonymous alatus* - Burning Bush**
NoVA Native Alternatives: *Vaccineum spp.*, Blueberries; *Myrica pensylvanica*, Bayberry

Euonymus fortunei - **Wintercreeper**
NoVA Native Alternatives: *Parthenocissus quinquefolia*, Virginia Creeper; *Packera aurea,* Golden Ragwort

Lonicera japonica var. Halliana – **Japanese (Hall's) Honeysuckle** and ***Lonicera periclymenum var. Harlequin*** - **Woodbine**
NoVA Native Alternatives: *Lonicera sempervirens*, Trumpet Honeysuckle; *Gelsemium sempervirens,* Yellow Jessamine; *Bignonia capreolata*, Crossvine

Wisteria floribunda and ***Wisteria sinensis***
NoVA Native Alternatives: *Wisteria frutescens*, American Wisteria

Learn More About Invasive Plants

Invasive Alien Plant Species of Virginia - Department of Conservation and Recreation,Division of Natural Heritage:
http://www.dcr.virginia.gov/natural_heritage/invspfactsheets.shtml

USDA National Invasive Species Information Center:
http://www.invasivespeciesinfo.gov/plants/main.shtml

Invasive.org - Center for Invasive Species and Ecosystem Health:
http://www.invasive.org/species/weeds.cfm

Mistaken Identity–Invasive Plants and Their Native Look-Alikes:
ftp://ftp-fc.sc.egov.usda.gov/DE/publications/Mistaken_Identity_Final.pdf

Additional Resources About Native Plants

About Native Plants

Online

Digital Atlas of the Virginia Flora
http://vaplantatlas.org/

Flora of North Amercia
http://www.fna.org/

Flora of Virginia Project
http://www.floraofvirginia.org

Virginia Native Plant Society
http://www.vnps.org/

Lady Bird Johnson Wildflower Center of the University of Texas at Austin
http://www.wildflower.org/

Master Gardeners of Northern Virginia "Tried and True Plants"
http://mgnv.org/plants/

Native Plant Center: Chesapeake Bay Watershed Native Plants for Wildlife and Habitat Conservation (U.S. Fish and Wildlife Service) **-**
http://nativeplantcenter.net/

Native Plants for Conservation, Restoration and Landscaping, VA Dept. of Conservation and Recreation, Natural Heritage:
http://www.dcr.virginia.gov/natural_heritage/nativeplants.shtml

Native Gardening with Wildflowers, U. S. Forest Service:
http://www.fs.fed.us/wildflowers/Native Plant_Materials/Native_Gardening/index.shtml

USDA Plants Database
http://plants.usda.gov/

Print

The American Woodland Garden, Rick Darke, 2002

Finding Wildflowers in the Washington-Baltimore Area, Cristol Fleming, Marion Lobstein and Barbara Tufty, 1995

Flora of Virginia, Alan S. Weakley, J. Christopher Ludwig & John E. Townsend, 2012

Manual of Woody Landscape Plants, Michael A. Dirr, 2009

Native Ferns, Mosses, and Grasses, William Cullina, 2008

Native Trees, Shrubs, & Vines: A Guide to Using, Growing, and Propagating North American Woody Plants, William Cullina, New England Wild Flower Society, Houghton Mifflin, 2002

Teaming with Microbes, Jeff Lowenfels and Wayne Lewis, Timber Press, 2010

The New England Wild Flower Society Guide to Growing and Propagating Wildflowers of the United States and Canada, William Cullina, 2000

Wildflowers and Grasses of Virginia's Coastal Plain, Helen Hamilton and Gustavus Hall, 2013

About Landscaping with Natives

Online

Audubon Guide to a Healthy Yard and Beyond:
www.audubon.org/bird/pesticide.html

Backyard Habitat, National Wildlife Federation:
http://www.nwf.org/In-Your-Backyard.aspx

Better Backyard–A Citizen's Resource Guide to Beneficial Landscaping and Habitat Restoration in the Chesapeake Bay Watershed, Chesapeake Bay Program, A 61-page downloadable booklet.:
http://www.chesapeakebay.net/content/publications/cbp_12259.pdf

Conservation Landscaping Guidelines-The Eight Essential Elements, Chesapeake Conservation Landscaping Council, A 33-page downloadable booklet.:
http://www.chesapeakelandscape.org

Habitat at Home, Virginia Department of Game and Inland Fisheries:
http://www.dgif.virginia.gov/habitat/wild-in-the-woods/habitat-at-home.pdf

Living Shoreline Design:
http://ccrm.vims.edu/livingshorelines/index.html (go to "Plants and Vendors")

Pollinator Partnership:
http://www.pollinator.org/

Additional Resources About Landscaping with Native Plants

Pollinators, U.S. Fish & Wildlife Service: http://www.fws.gov/pollinators/Index.html

Wild Ones Handbook Online-Landscaping with Native Plants, U. S. Environmental Protection Agency: http://www.epa.gov/greenacres/wildones

WINGS: Essays on Invertebrate Conservation, Xerces Society: http://www.xerces.org/wings-magazine/

Print

Attracting Birds, Butterflies & Other Winged Wonders to Your Backyard, Kris Wetherbee, 2004

Bee Basics: An introduction to Our Native Bees, Beatriz Moissett and Stephen Buchmann, A USDA Forest Service and Pollinator Partnership Publication

Bringing Nature Home: How You Can Sustain Wildlife with Native Plants, by Douglas W. Tallamy c. 2009 (updated and expanded), Timber Press, Portland OR; 360 pp., http://bringingnaturehome.net/nativegardening/gardening-for-life

Kaufman Focus Guides, Butterflies of North America, Jim P. Brock and Kenn Kaufman, 2003

Insects and Gardens: In Pursuit of a Garden Ecology, Eric Grissell, Timber Press, 2001

Native Plants for Wildlife Habitat and Conservation Landscaping, US Fish and Wildlife Service (also available on line)

Pollinator Conservation Handbook, The Xerces Society, 2003

The Forgotten Pollinators, Stephen L. Buchmann and Gary Paul Nabhan, Island Press, 1997

The Xerces Society Guide to Attracting Native Pollinators, Eric Mader, et al., 2011

The Living Landscape: Designing for Beauty and Biodiversity in the Home Garden, Rick Darke and Doug Tallamy, Timber Press, 2014

Is Your Property Frequented by Deer?

It's almost certain, even in urban locations. The deer population in Northern Virginia is growing. Suburban development, with its mix of land uses that juxtapose small woodlots and backyards replicates and multiplies the natural edge habitat in which deer thrive. These land use patterns combined with the almost total lack of predators make Northern Virginia and other suburban landscapes perfect deer habitat. Deer actually love many of the plants we grow in these places, and when they are starving, they will eat almost anything – including the plants in your garden. Deer particularly love plants in the lily (*Liliaceae*), amaryllis (*Amaryllidaceae*), rose (*Rosaceae*), and heath (*Ericaceae*) families. In addition, deer will enjoy eating the fallen leaves of the native bigtooth aspen (*Populus grandidentata*) or Eastern cottonwood (*P. deltoides*). They are less eager for grasses, ferns, and plants in the aster and mint families.

So what can you do about it?

To discourage browsing, you can select plants that deer find less palatable, such as spiny and aromatic plants. You can protect young plants with shelters and nets, and enclosures that prevent deer from eating tender growth and bark. You can try excluding deer, but they have been known to jump eight-foot fences. You also can choose plants that provide sustainable browse, including trees such as oaks and hickories, which provide a bounty of nuts and acorns just as other plants are going dormant. You may spray monthly with formulations based on putrescent egg solids. Finally, if you have the resources, you can increase the number and diversity of plants on your property to improve food availability for all of the wildlife in your habitat.

Index of Native Plants for Northern Virginia

Latin Name	Common Name	Region	Height	Sun	Moisture	Soil Type	pH	Page
Perennials (Forbs)								
Achillea millefolium	Common Yarrow	P C	1–3 ft	☼ ◐	M D	C L		
Actaea racemosa	Common Black Cohosh, Bugbane	P C	4–6 ft	◐ ●	M	L S		
Ageratina altissima	White Snakeroot	P C	1–5 ft	☼ ◐ ●	M D	C L S		
Anemone virginiana	Tall Anemone, Thimbleweed	P C	1–2 ft	☼ ◐	M D	C L S		
Antennaria plantaginifolia	Plantain-leaved Pussytoes	P C	0.5–1 ft		M D	L S		
Aquilegia canadensis	**Wild or Eastern Red Columbine**	P C	1–3 ft	◐	W M D	L S		6
Aralia racemosa	Spikenard, American Spikenard	P C	1.5–6.5 ft	◐ ●	M	C L S		
Arisaema triphyllum	**Common Jack-in-the-pulpit**	P C	1–2 ft	◐ ●	W M	L S	4.8–7	6
Aruncus dioicus	**Goatsbeard (Eastern Goat's-beard)**	P C	3–8 ft	◐ ●	W M	C L S	<6.8	6
Asarum canadense	**Common Wild Ginger**	P C	4–8 in	◐ ●	M	C L S	6–7	6
Asclepias incarnata	**Swamp Milkweed**	P C	4–6 ft	☼ ◐	W M	C L	5–8	7
Asclepias tuberosa	**Butterfly Weed**	P C	1–3 ft	☼ ◐	M D	L S	4.8–6.8	7
Baptisia australis	**Blue Wild Indigo**	P	up to 5 ft	☼	M D	S	<6.8	7
Baptisia tinctoria	**Yellow Wild-indigo**	P C	1–3 ft	☼	D	L S	5.8–7	7
Bidens aristosa	Tickseed Sunflower	P C	3–6 ft	☼	W M			
Bidens cernua	Nodding Beggar-ticks, Nodding Bur-marigold	P C	0.5–3 ft	☼ ◐	M D	C L S	5.1–7	
Bidens laevis	Smooth Bur-marigold	P C	1–3 ft	☼ ◐	W M	L S O		
Caltha palustris	Marsh Marigold, Cowslip	C	1–2 ft	☼ ◐	W	C L	4.9–6.8	
Caulophyllum thalictroides	Blue Cohosh, Common Blue Cohosh	P C	1–2.5 ft	☼ ◐	M	L	4.5–7	
Chamaecrista fasciculata	Common Partridge Pea	P C	0.5–3 ft	☼	D	S		
Chelone glabra	**White Turtlehead**	P C	2–4 ft	☼ ◐ ●	W M	C L S		8
Chimaphila maculata	Spotted or Striped Wintergreen	P C	0.5 ft	◐ ●	D	C L S		
Chimaphila umbellata	Umbellate Wintergreen, Pipsissewa	P C	0.5 ft	●	M D	C L S		
Chrysogonum virginianum	Green and Gold	P C	0.5–1 ft	☼ ◐ ●	M D	L		
Chrysopsis mariana	Maryland Golden-aster	P C	0.5–2.5 ft	☼ ◐	D	S		8
Claytonia virginica	**Virginia Spring Beauty**	P C	4–12 in	◐ ●	M	L	<6.8	
Clitoria mariana	Butterfly Pea, Maryland Butterfly Pea	P C	6 ft	☼ ◐	D	S		

Region: M = mountain; P = piedmont; C = coastal
Moisture: W= wet; M = moist; D = dry

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Perennials (Forbs)

Latin Name	Common Name	Region	Height	Sun	Moisture	Soil Type	pH	Page
Conoclinium coelestinium	Mistflower, Ageratum	P C	1–3.5 ft	◐ ●	W M D	C L		
Coreopsis verticillata	**Whorled or Threadleaf Coreopsis**	P C	.5–3.5 ft	☼ ◐	D	L S	<6.8	8
Dicentra cucullaria	Dutchman's Breeches	P	0.5–1 ft	◐ ●	M	L S	<6.8	
Dicentra eximia	**Wild Bleeding heart**	P	1.5–2 ft	◐ ●	W M	L		8
Equisetum hyemale	Tall Scouring Rush, Scouring Horsetail	P C	1–6 ft	☼ ◐ ●	W	C L S		
Erigeron pulchellis	Robin's Plantain	P C	0.5–1.5 ft	◐	M D	L S		
Eupatorium hyssopifolium	Hyssop-leaved Thoroughwort	P C	1–4.5 ft	☼ ◐	M D	S		
Eupatorium perfoliatum	Boneset, Common Boneset	P C	1–5 ft	☼ ◐ ●	W M	C L S		
Eurybia divaricata	**White Wood Aster**	P	6 in–3.5 ft	●	M D	C L S	5–7.2	9
Euthamia graminifolia	Flat-top Goldenrod	P C	3–6 ft	☼	M			
Eutrochium purpureum	**Sweet-scented Joe-pye-weed**	P C	1–6.5 ft	☼ ◐ ●	W M	C L S		9
Fragaria virginiana	**Wild Strawberry**	P C	up to 1 ft	◐	M D	C L S		9
Gentiana clausa	Bottle or Closed Gentian	P C	1–3.5 ft	◐	W M	L	5.8–7.2	
Geranium maculatum	**Wild or Spotted Geranium**	M P C	.5–2.5 ft	☼ ◐	M D	L		9
Goodyera pubescens	Downy Rattlesnake-plantain	P C	0.5–1.5 ft	◐	M D	C L S		
Helenium autumnale	Common Sneezeweed	P C	1.5–6 ft	☼ ◐ ●	M	C L S	4–7.5	
Helianthus angustifolius	**Narrow-leaved Sunflower**	C	3–6 ft	◐	W M	L S	4–7	10
Helianthus divaricatus	Woodland or Spreading Sunflower	P C	1.5–6.5 ft	◐	M D	S		
Helianthus tuberosus	**Jerusalem Artichoke**	P C	3–6 ft	☼	M D	C L S		10
Heliopsis helianthoides	Oxeye, Smooth Oxeye, Oxeye Sunflower	P C	1–5 ft	☼ ◐	M D	L S	5.6–6.8	
Hepatica noblis v. obtusa	Round-lobed Hepatica	P C	0.5–2 ft	◐ ●	M D	L S		
Heuchera americana	**American Alumroot**	P C	1–5 ft	◐ ●	D	L S		10
Hexastylis virginica	Wild ginger, Virginia Heartleaf	P C	0.5 ft	●	M	L		
Hibiscus moscheutos	**Swamp or Eastern Rose-mallow**	P C	3–8 ft	☼ ◐	W M	C L S	4–7.5	10
Houstonia caerulea	Common Bluets, Azur Bluets, Quaker Ladies	P C	0.5–1 ft	☼ ◐	M			
Hypericum prolificum	Shrubby St. Johns-wort	P C	1.5–8 ft	◐ ●	M D	C L S	6.8–7.2	
Impatiens capensis	Orange or Spotted Jewelweed	P C	1.5–5 ft	◐ ●	W M	C L S	5.4–7.4	

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Latin Name	Common Name	Region	Height	Sun	Moisture	Soil Type	pH	Page
Iris cristata	**Dwarf Crested Iris**	P C	.5–1.5 ft	◐ ●	M D	L S	<6.8	11
Iris virginica	Virginia or Southern Blueflag	P C	1–2 ft	☼ ◐	W	C L	4.8–7.3	
Jeffersonia diphylla	Twinleaf	P C	0.5–1 ft	◐ ●	M	L		
Lespedeza procumbens	Trailing Bush-clover	P C	0.5 ft	☼ ◐ ●	M D	C L S		
Lespedeza virginica	Slender Lespedeza, Slender Bush-clover	P C	3–6 ft	◐ ●	D	S		
Liatris pilosa v. pilosa	**Grass-leaf Blazing Star, Grass-leaf Gayfeather**		1-3.5 ft	☼	M	C L S		11
Liatris scariosa	**Large Blazing Star, Eastern Blazing Star**		1-3.5 ft	☼	M D	L S		11
Liatris spicata	**Dense Blazing Star, Gayfeather, Blazing Star**		3-6 ft	☼	M	S	<6.8	11
Liatris squarrosa	**Scaly Blazing Star, Plains Blazing Star**		1-3 ft	☼	D			11
Lilium canadense	Canada Lily	P C	1.5–6.5 ft	☼ ◐	W M	L		
Lilium superbum	**Turk's-cap Lily**	P C	4–8 ft	☼	M	L S		11
Lobelia cardinalis	**Cardinal Flower**	P C	1–6 ft	☼ ◐ ●	W M	C L S	5.8–7.8	12
Lobelia siphilitica	**Great Blue Lobelia**	P C	1–5 ft	☼ ◐ ●	W M	C L S		12
Lupinus perennis	Sundial Lupine, Lupine	P C	1–6 ft	☼	M	S		
Maianthemum canadense	Canada Mayflower, False Lily-of-the-valley	P C	0.5 ft	◐ ●	M	C L S		
Maianthemum racemosum	**Eastern Solomon's-plume, False Solomon's-seal**	P C	1–4.5 ft	◐ ●	M	C L S		12
Medeola virginiana	Indian Cucumber-root, Indian Cucumber	P C	1–3.5 ft	☼ ◐	M	L S		
Mertensia virginica	**Virginia Bluebell, Virginia Cowslip**	P	.5–2.5 in	◐ ●	M	C L	4.5–8	12
Micranthes virginiensis *(Saxifraga v.)*	Early Saxifrage	P C	0.5–1 ft	☼ ◐ ●	M D			
Mimulus ringens	Square-stemmed or Allegheny Monkeyflower	P C	1–3 ft	☼ ◐	W	L		
Mitchella repens	**Partridge-berry**	P C	.5 ft	◐ ●	M D	L S		13
Monarda didyma	**Scarlet Beebalm, Oswego Tea**	M	2–4 ft	☼ ◐	W M	L		13
Monarda fistulosa	Wild Bergamot	P C	1.5–5 ft	☼ ◐	M D	C L	6–8	
Nuttallanthus canadensis *(Linaria c.)*	Blue, Canada or Oldfield Toadflax	P C	0.5–2.5 ft	☼ ◐	M D	L S		
Oenothera fruticosa	**Narrow-leaf or Southern Sundrops**	P C	1–3 ft	☼	M	C L S	4.5–7	13
Opuntia humifusa	**Eastern Prickly-pear**	P C	1–2.5 ft	☼	D	L S		13

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Osmorhiza claytonii	Sweet Cicely {or O. longistylis}	P C						
Oxalis violacea	Violet Wood-sorrel	P C	0.5 ft	☼ ◐	M D	L		
Packera aurea	**Golden or Heartleaf Ragwort**	P C	1–4 ft	☼ ◐ ●	M D	L S	<6.8	14
Peltandra virginica	**Arrow Arum, Green Arrow Arum, Tuckahoe**	P C	2–3 ft	◐	W	C L		14
Penstemon digitalis	**Beardtongue, Tall or White Foxglove**	P C	1.5 - 5 ft	☼ ◐	M D	C L S	5.5–7	14
Phlox divaricata	**Wild Blue or Woodland Phlox**	P	.5–2 in	◐ ●	M D	C L S	5.5–7.2	14
Phlox maculata	Meadow Phlox, Wild Sweet William	P C	1–3 ft	☼ ◐ ●	W M	C L	5.9–6.8	
Phlox paniculata	Fall or Garden Phlox	P C	1.5–6.5 ft	☼ ◐	M	L		
Phlox subulata	Moss Phlox, Moss Pink	P	0.5 ft	☼	D	C L S	5.7–7.5	
Physostegia virginiana	Northern or Fall Obedient-plant	P	1.5–5 ft	☼ ◐	M D	C L S		
Podophyllum peltatum	**Mayapple**	P C	.5–1.5 ft	◐ ●	M D	L		15
Polemonium reptans	Spreading Jacob's Ladder, Greek Valerian	P C	0.5–1.5 ft	◐ ●	M	L S		
Polygonatum biflorum	Solomon's seal	P C	0.5–6.5 ft	◐ ●	M D	L		
Pycnanthemum incanum	Hoary Mountain Mint	P C	3 ft	●	D	C L S		
Pycnanthemum tenuifolium	**Narrow-leaf or Slender Mountain-mint**	P C	1–4 ft	☼ ◐	W M D	S		15
Rhexia virginica	Virginia Meadow Beauty, Deergrass	P C	1–3.5 ft	☼	W	L		
Rudbeckia fulgida	**Orange Coneflower**	P	1–4 ft	☼ ◐	M D	L		15
Rudbeckia laciniata	**Cut-leaf, Common or Green-headed Coneflower**	P C	1.5–10 ft	☼ ◐	W M	C L S	4.5–7	15
Ruellia caroliniensis	**Carolina or Common Wild-petunia**	C	2–3 ft	◐ ●	W M	C L S		15
Salvia lyrata	Lyre-leaf Sage	P C	1–2 ft	☼ ◐	M D	L S		
Sanguinaria canadensis	Bloodroot	P C	0.5 ft	◐ ●	M	L		
Saururus cernuus	Lizard's-tail, Water-dragon	P C	1.5–4.5 ft	☼ ◐	W	C L S		
Scutellaria integrifolia	Rough or Hyssop Skullcap, Helmet Flower	P C	1–2.5 ft	☼ ◐	W M D			
Sedum ternatum	**Wild or Woodland Stonecrop**	P C	2–8 in	◐	M D	L S		16
Senna marilandica *(Cassia m.)*	Maryland or Southern Wild Senna	P C	3–6.5 ft	☼ ◐	M D	L S	4–7	
Silene caroliniana	**Wild or Northern Wild Pink**	P C	1.5–8 in	◐	M D	L		16

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Latin Name	Common Name	Region	Height	Sun	Moisture	Soil Type	pH	Page
Perennials (Forbs)								
Sisyrinchium angustifolium	**Narrow-leaved Blue-eyed-grass**	P C	1–1.5 ft	☼ ◐	M D	C L	5–7	17
Solidago caesia	**Blue-stemmed or Wreath Goldenrod**	M P C	1-3.5 ft	☼ ◐ ●	M D	C L	5.5–7	16
Solidago flexicaulis	**Zig-zag Goldenrod**	M P	3-6 ft	◐ ●	M D	C L S	5.3–7	16
Solidago nemoralis	**Gray, Dwarf, Old Field Goldenrod**	M P C	0.5 -3 ft	◐ ●	D	L S	6.5–7.5	16
Solidago rugosa	**Rough-stemmed or Wrinkle-leaf Goldenrod**	M P C	1-6.5 ft	☼ ◐	W M	L S	5-7.5	16
Solidago altissima	**Tall Goldenrod, Late Goldenrod**	M P C	3.5-6.5 ft	☼ ◐	M D	C L		16
Solidago juncea	**Early Goldenrod**	M P C	3-6 ft	☼ ◐	M D	L S		16
Spiranthes cernua	Nodding Ladies' Tresses	P C	0.5–2 ft	☼ ◐	M D	C L S	4.5 - 6.5	
Stellaria pubera	Star, Giant or Great Chickweed, Common Starwort	P C	0.5–1.5 ft	●	M			
Symphyotrichum cordifolium	**Heart-leaved aster, Blue Wood Aster**	M P C	3-6 ft	☼ ◐	M D	C L S		17
Symphyotrichum laeve	**Smooth Blue Aster, Smooth Aster**	M P C	3-6 ft	☼ ◐	D	C L S		17
Symphyotrichum lateriflorum	**Calico Aster**			◐	M	C L S		17
Symphyotrichum novae-angliae	**New England Aster**	M P C	3-6 ft	☼ ◐	M			17
Symphyotrichum novi-belgii	**New York Aster**	P C	1-4.5 ft	☼ ◐	W M	L		17
Thalictrum dioicum	Early Meadow Rue	P	1–2.5 ft	●	M	L		
Thalictrum pubescens (*T. polygamum*)	Common Tall Meadow Rue Rue, King of the Meadow	P C	1.5–9 ft	☼ ◐ ●	W M			
Thalictrum thalictroides	Rue Anemone (Windflower)	P C	0.5–1 ft	☼ ◐	M D	C L S		
Tiarella cordifolia	Heart-leaved Foamflower, False Miterwort	P C	0.5–1 ft	☼ ◐ ●	M	L		
Tradescantia virginiana	Virginia Spiderwort	P C	1–3 ft	☼ ◐ ●	M	C L	4-8	
Uvularia perfoliata	Perfoliate or Mealy Bellwort	P C	0.5–2 ft	☼ ◐	M	L		
Verbena hastata	Blue, Common or Swamp Verbena	P	1.5–5 ft	☼ ◐	W M	C L S		
Verbesina alternifolia	Wingstem, Yellow Ironweed	P C	3.5–8 ft	☼	M			
Vernonia noveboracensis	**New York Ironweed**	P C	3–6 ft	☼ ◐	M D	L		18
Veronicastrum virginicum	Culver's-root	P C	3–6.5 ft	☼ ◐	W M	C L S		
Viola cucullata	**Marsh Blue Violet**	M P C	0.5 ft	☼ ◐ ●	W M	C L S		17
Viola labradorica (conspersa)	**Dog Violet**	M P C	1 ft	☼ ◐	W M			17
Viola pedata	**Bird's-foot Violet**	M P C	1 ft	☼ ◐	M D	L S		17

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Perennials (Forbs)								
Viola sagittata	**Arrow-leaved Violet**	M P C	1 ft		M	L		17
Viola striata	**Striped Violet, Cream Violet**	M P C	1 ft	◐	W M	L		17
Yucca filamentosa	**Common Yucca, Adam's Needle**	C	1–6.5 ft	☼	D	L S	5.5–7.5	17
Zizia aurea	**Golden-alexanders**	P C	1–3 ft	☼ ◐ ●	W M	C L S		17
Grasses								
Andropogon virginicus	Broomsedge, Broomstraw, Sedge Grass	P C	1–3 ft	☼	M	C L S	4.9–7	
Carex pensylanica	**Pennsylvania Sedge**	P C	.5–1 ft	☼ ◐ ●	M D	S		19
Carex stricta	Tussock Sedge, Upright Sedge	P C	1–3.5 ft	☼	M	C L S	3.5–7	
Dichanthelium clandestinum	Deer-Tongue Grass	P C	2–5 ft	☼ ◐	M D	C L S	4–7.5	
Elymus hystrix	Bottlebrush Grass	P C	2–4 ft	☼ ◐ ●	W M D	L		
Elymus virginicus	Virginia Wild Rye	P C	1–5.5 ft	☼ ◐	M D	C L S	5–7	
Eragrostis spectabilis	**Purple Love Grass**	P C	.5–1.5 ft	☼	M D	S		19
Juncus effusus	Common Rush, Soft Rush	P C	1–4 ft	☼ ◐	W M	C L S	5.5–7	
Panicum virgatum	Switchgrass	P C	3–5 ft	◐ ●	M	C L S	4.5–8	
Saccharum giganteum *(Erianthus giganteus)*	Giant Plumegrass, Sugarcane Plumegrass	P C	3.5–10 ft	☼ ◐	W M	L S	3.5–7	
Schizachyrium scoparium	**Little Bluestem**	P C	1.5–4 ft	☼ ◐	D	C L S		19
Scirpus cyperinus	Woolgrass Bulrush	P C	4–5 ft	☼	W M D	C L S	4.8–7.2	
Sorghastrum nutans	**Indian Grass**	P C	1.5–8.5 ft	☼	M D	C L S	4.8–8	21
Tridens flavus var. flavus	Purpletop, Tall Redtop	P C	2–6.5 ft	☼ ◐	W M D	C L S	4.5–6.5	
Zizania aquatica	Southern Wild Rice	C	6–10 ft	☼	M D	C L S	6.4–7.4	
Ferns								
Adiantum pedatum	**Northern Maidenhair Fern**	P C	.5–2 ft	◐ ●	M	L S	4.5–6.5	20
Asplenium platyneuron	Ebony Spleenwort	P C	0.5–1.5 ft	☼ ◐ ●	M	C L S	4.5–7	
Athyrium asplenioides	Southern Lady Fern	P C	2–3 ft	◐ ●	M	L S		
Dryopteris carthusiana	Spinulose Wood Fern	P C	1–2.5 ft	◐ ●	M D	L		

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Ferns								
Dryopteris intermedia	Evergreen or Intermediate Wood Fern	P C	2.5 ft	◐ ●	W M D	L		
Dryopteris marginalis	Marginal Wood Fern, Evergreen Shield Fern	P	1–3 ft	◐ ●	M D	C L S		
Matteuccia struthiopteris	**Ostrich Fern**	P C	1–6 ft	◐ ●	W M	L S		20
Onoclea sensibilis	Sensitive Fern, Bead Fern	P C	1–3.5 ft	☼ ◐ ●	W M	C L S		
Osmunda claytoniana	Interrupted Fern	P C	1–4 ft	◐ ●	M	C L	4–6	
Osmunda spectabilis	Royal Fern	P C	1.5–6 ft	☼ ◐ ●	W M	C L S	4–6	
Osmundastrum cinnamomeum	**Cinnamon Fern**	P C	6 ft	☼ ◐ ●	W	C L	4.5–7	20
Parathelypteris novaboracensis	New York Fern	P C	1.5–6 ft	☼ ◐	W M D	C L S		
Polystichum acrostichoides	**Christmas Fern**	P C	1–3 ft	◐ ●	M	L S	4.5–7	20
Pteridium aquilinum	Bracken Fern	P C	1.5–6 ft	☼ ◐	W M D	C L S		
Thelypteris palustris	Marsh Fern	P C	2–3 ft	☼ ◐	M D	C L S		
Vines								
Bignonia capreolata	Cross-vine	P C	20–35 ft	☼ ◐	W M D	C L S	6.1–8.5	
Clematis virginiana	**Virgin's Bower**	P C	12–15 ft	☼ ◐ ●	W M	C L S	6.1–8.5	21
Decumaria barbara	Climbing Hydrangea, Woodvamp	P C	12–36 ft	◐ ●	M			
Gelsemium sempervirens	**Yellow Jessamine**	P C	10–20 ft	☼ ◐	M D	C L S	6.8–7.2	21
Lonicera sempervirens	**Trumpet or Coral Honeysuckle**	P C	3–20 ft	☼ ◐	M	C L S	6.1–7.5	21
Passiflora incarnata	Purple Passionflower, Maypop	P C	12–36 ft	☼	M D	C L S		
Passiflora lutea	Yellow Passionflower	P C	12–36 ft	◐	M	L S		
Vitis aestivalis	Summer Grape	P C	25–35 ft	☼	M	C L S		
Wisteria frutescens	**American Wisteria**	C	25–30 ft	☼ ◐ ●	M D	C L S	4–7	21

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Shrubs

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Alnus serrulata	Smooth or Hazel Alder	P C	12–20 ft	☼	W M	C L	5.5–7-5	
Amorpha fruticosa	**False Indigo**	P C	6–13 ft	☼ ◐	M D	C L S		22
Aronia arbutifolia	**Red Chokeberry**	P C	6–12 ft	☼	W M D	C L S	5.1–6.5	22
Aronia melanocarpa (*Photinia melanocarpa*)	Black Chokeberry	P C	3–6 ft	☼ ◐	W M D	C L S	5.1–6.5	
Baccharis halimifolia	High Tide Bush, Groundsel Tree, Mullet Bush	P C	6–12 ft	☼	W M D	C L S	7–8.5	
Castanea pumila	Allegheny Chinquapin	P C	10–20 ft	☼ ◐	D	L S	4.5–7.5	
Ceanothus americanus	New Jersey Tea, Redroot	P C	3 ft	☼ ◐	D	C L S	4.3–6.5	
Cephalanthus occidentalis	**Buttonbush**	P C	6–12 ft	☼ ◐	W M	C L S	6.1–8.5	22
Clethra alnifolia	Sweet Pepperbush	P C	3–8 ft	☼ ◐	W M	C L S		
Cornus amomum	Silky Dogwood	P C	6–12 ft	☼ ◐	W M	C L S	6.1–7.5	
Crataegus crus-galli	Cockspur Hawthorn	P C	20–35 ft	☼ ◐	M D	C L S	4.5–7.2	
Eubotrys racemosa	Fetterbush, Swamp Doghobble	P C	4–6 ft	◐ ●	W M	C L S		
Euonymus americanus	**Strawberry-bush, Heart's-a-bustin'**	P C	6–10 ft	☼ ◐ ●	W M	C L S		22
Gaultheria procumbens	**Wintergreen, Teaberry**	P C	2–6 ft	◐ ●	D	L S	4–6.5	23
Gaylussacia baccata	Black Huckleberry	P C	1.5–3 ft	◐ ●	W M D	C L S	4.5–6.5	
Hamamelis virginiana	**Witch Hazel**	P C	10–15 ft	☼ ◐ ●	M	C L S	5.5–6.5	23
Hydrangea arborescens	Wild Hydrangea, Smooth Hydrangea	P C	3–6 ft	◐ ●	M	L S	6.1–8.5	
Hypericum prolificum	Shrubby St. John's Wort	P C	1–3 ft	◐ ●	M D	C L S		
Ilex decidua	Deciduous Holly, Possum-haw	P C	12–36 ft	☼ ◐	M	C L S		
Ilex verticillata	**Winterberry, Winterberry Holly, Black Alder**	P C	3–10 ft	☼ ◐ ●	W M	C L S	4.5–6.5	23
Itea virginica	**Virginia Willow, Virginia Sweetspire**	C	3–8 ft	☼ ◐ ●	W M	C L S	5.1–7.5	23
Kalmia latifolia	**Mountain Laurel**	P C	5–15 ft	☼ ◐ ●	W M D	C L S	4.5–6	24
Lindera benzoin	**Spicebush**	P C	6–16 ft	☼ ◐ ●	M	L S	4.5–6.5	24
Physocarpus opulifolius	**Ninebark**	P	3–10 ft	☼ ◐ ●	W M	C L	6.1–8.5	24
Rhododendron maximum	Great Rhododendron	P C	15–20 ft	◐ ●	W M	L	4.5–6	
Rhododendron periclymenoides	**Wild Azalea, Pinxter, or Pinxterbloom Azalea**	P C	6–12 ft	☼ ◐	M D	L	4.5–5.5	24

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Shrubs								
Rhododendron viscosum	Swamp or Clammy Azalea	P C	6.5–10 ft	☼ ◐	W M	C L S	4–6	
Rhus aromatica	Fragrant sumac	M P	6 ft	☼ ◐	D	L S	6.1–8.5	
Rhus copallinum	Winged, Shining or Flameleaf Sumac	M P C	20–35 ft	☼ ◐	D	C L S	5.3–7.5	
Rhus glabra	Smooth Sumac	M P C	2–20 ft	☼	M D	L S	5.3–7.5	
Rosa carolina	**Carolina Rose, Pasture Rose**	M P C	1–6.5 ft	☼ ◐	M D	C L S	6.1–8.5	25
Rosa palustris	Swamp Rose	P C	8 ft	☼ ◐ ●	W M	C L	4–7	
Salix sericea	Silky Willow	M P C	12 ft	☼ ◐ ●	W M	C L S	5.2–7	
Sambucus canadensis	**Common Elderberry, American Elder**	M P C	6–12 ft	◐	W M D	C L S	6.1–7.5	25
Staphylea trifolia	Bladdernut	M P	3–15 ft	●	M	L	6.1–8	
Vaccinium corymbosum	Highbush or Northern Highbush Blueberry	M P C	6–12 ft	☼ ◐ ●	W M D	L S	4–6.5	
Vaccinium pallidum	**Early Lowbush or Blue Ridge Blueberry**	P C	1.5–2 ft	☼ ◐ ●	M D	L S		25
Viburnum acerifolium	**Maple-leaved Viburnum, Dockmackie**	P C	4–6 ft	☼ ◐ ●	W M D	C L S	5.1–6	25
Viburnum dentatum	Arrow-wood, Southern Arrow-wood Viburnum	M P C	10–15 ft	☼ ◐ ●	W M D	L S	5.1–6.5	
Viburnum nudum	Possum-haw Viburnum, Southern Wild Raisin	M P C	6.5–20 ft	☼ ◐ ●	W M	L S	5.1–6	
Viburnum prunifolium	Blackhaw Viburnum, Nannyberry	M P C	12–24 ft	☼ ◐ ●	W M D	C L	4.8–7.5	
Trees								
Acer rubrum	Red Maple	M P C	40–100 ft	☼ ◐ ●	W M D	C L S	5.4–7.1	
Amelanchier arborea	Downy Serviceberry	M P C	15–25 ft	◐ ●	M D	L S	5.5–7.5	
Amelanchier canadensis	**Canada Serviceberry**	M P C	15–30 ft	☼ ◐	M	C L S	5.6–7.5	26
Aralia spinosa	Devil's Walking-stick, Hercules club	P C	20–30 ft	☼ ◐	M D	C L S	5.5–7.1	
Asimina triloba	**Pawpaw, Common Pawpaw**	M P C	10–40 ft	☼ ◐ ●	M	L S	5.2–7.2	26
Betula nigra	**River Birch**	M P C	30–50 ft	◐	W M	C L S	4–6	26
Carpinus caroliniana	**American Hornbeam, Ironwood**	M P C	35–50 ft	◐ ●	W M D	L S	4–7.4	26
Carya cordiformis	Bitternut Hickory	M P C	60–100 ft	☼	W M	C L S	6.5–7.4	
Carya glabra	Pignut Hickory	M P C	60–100 ft	☼ ◐	W M D	L	6.5–7.4	
Carya tomentosa	Mockernut Hickory	P C	60–100 ft	◐ ●	M D	L S	4–7.4	
Celtis occidentalis	Common Hackberry	P C	40–100 ft	☼ ◐ ●	W M D	C L S	6–7.8	

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Trees								
Cercis canadensis	Eastern Redbud	M P C	20–35 ft	☼ ◐ ●	W M D	C L S	6–7.8	
Chionanthus virginicus	Fringe Tree, Old Man's Beard	M P C	20–35 ft	☼ ◐ ●	M D	L S	4.5–6.5	
Cornus florida	Flowering Dogwood	M P C	20–50 ft	◐	M D	L	5–7	
Diospyros virginiana	**Common or American Persimmon**	M P C	15–100 ft	◐	W M	C L	5–7	27
Fagus grandifolia	American Beech	M P C	50–100 ft	☼ ◐ ●	M	C L S	4.1–6.5	
Ilex opaca	**American Holly**	M P C	25–60 ft	☼ ◐ ●	M D	C L S	4–7.5	27
Juniperus virginiana	**Eastern Red Cedar**	M P C	30–40 ft	☼ ◐ ●	M D	C L S	5–8	27
Liquidambar styraciflua	Sweetgum	M P C	60–100 ft	☼ ◐	W M	C L S	4.5–7	
Liriodendron tulipifera	Tulip-tree, Tulip-poplar, Yellow Poplar	M P C	70–100 ft	☼	M	L S	4.5–6.5	
Magnolia virginiana	**Sweetbay Magnolia, Swamp Magnolia**	P C	12–30 ft	◐	W M	C L S	5–6.5	27
Morella cerifera	Wax Myrtle, Southen Bayberry	P C	6–15 ft	☼ ◐	W M D	C L S	5.5–7	
Nyssa sylvatica	**Sour Gum, Black Gum, Tupelo**	M P C	30–60 ft	☼ ◐ ●	M D	L S	4.5–6	28
Pinus echinata	**Shortleaf Pine**	M P C	50–130 ft	◐	M D	C L S	4.6–6	28
Pinus rigida	Pitch Pine	M P C	50–75 ft	☼	D	L S	3.5–5.1	
Pinus taeda	Loblolly Pine	P C	70–90 ft	☼	W M D	C L S	4.5–7	
Pinus virginiana	Virginia Pine, Scrub Pine	P C	50–80 ft	☼	M D	C L S	4.5–7.5	
Prunus americana	American Wild Plum	M P C	20–35 ft	☼ ◐	M D	L S	5–7	
Prunus angustifolia	Chickasaw Plum	P C	12–36 ft	☼ ◐	D	L S		
Quercus alba	**White Oak**	M P C	40–100 ft	☼ ◐	M D	L S	4.5–6.8	28
Quercus bicolor	Swamp White Oak	M P C	60–100 ft	☼ ◐	W M D	C L S	4.3–6.5	
Quercus coccinea	Scarlet Oak	M P C	40–75 ft	☼	M D	L S	4.5– 6.9	
Quercus falcata	Southern Red Oak, Spanish Oak	M P C	70–80 ft	☼	M D	C L S	4.8–7	
Quercus marilandica	Blackjack Oak	P C	35–50 ft	☼ ◐	D	L S	4.6–5.6	
Quercus michauxii	Swamp Chestnut Oak, Basket Oak	P C	50–80 ft	☼	W M	L	4.5–6.5	
Quercus montana *(Quercus prinus)*	Chestnut Oak, Rock Chestnut Oak	M P C	40–80 ft	☼	M D	L S	4.5–7	
Quercus muehlenbergii	Chinquapin, Chinkapin or Yellow Oak	M P C	35–50 ft	☼	M D	L	6.5–8	

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Trees								
Quercus palustris	Pin Oak	M P C	50–80 ft	☼	W M	C L	4.5–6.5	
Quercus phellos	Willow Oak	P C	80–100 ft	☼ ◐	W M	C L	4.5–6.5	
Quercus rubra	Northern Red Oak	M P C	90 ft	☼ ◐	M D	C L	4.3–6.5	
Quercus stellata	Post Oak	M P C	40–50 ft	☼ ◐	D	C L S	4.8–7	
Quercus velutina	Black Oak	M P C	75–100 ft	☼ ◐	M D	C L S	4.5–6	
Salix nigra	Black Willow	M P C	35–50 ft	☼ ◐	W M	C L S	6–8	
Sassafras albidum	Sassafras	M P C	35–50 ft	☼	M D	L S	4.5–7.2	
Taxodium distichum	**Baldcypress**	P C	up to 100 ft	☼ ◐	W M	C L S	4.5–6	28

Region: M = mountain; P = piedmont; C = coastal
Moisture: W= wet; M = moist; D = dry

Soil Type: C = clay; L = loam; S = sandy

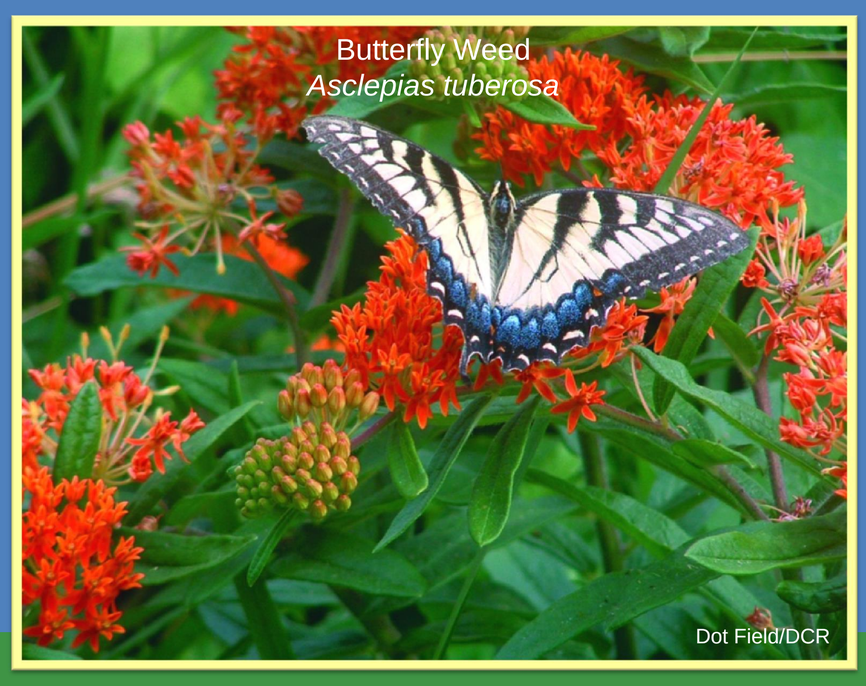
Your Native Plant Notes

www.plantnovanatives.org

Plant NoVA Natives

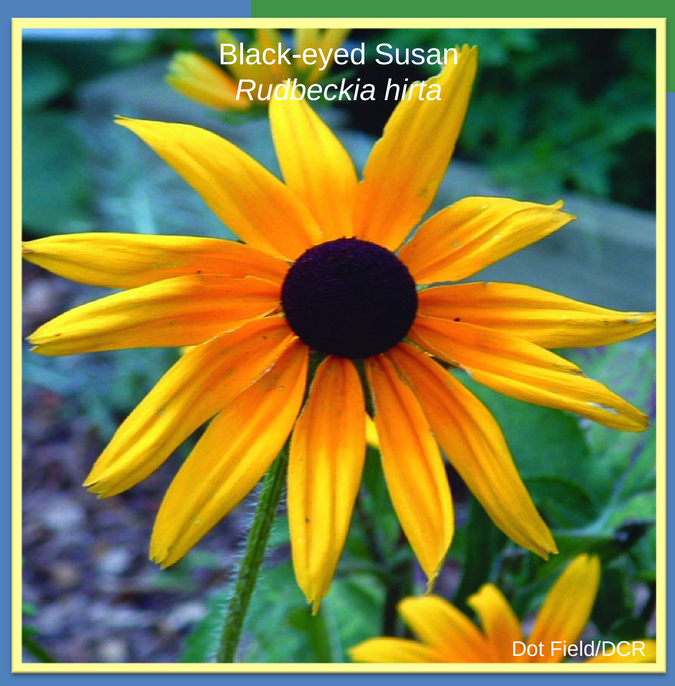
Naturally Beautiful!

www.plantnovanatives.org



Ask for native plants at your plant retailer to:

- Support wildlife
- Benefit pollinators
- Improve water quality



Six Easy Plants for Sun

For planting ideas:
www.plantnovanatives.org

Scan to website:
www.plantnovanatives.org

Create a Living Landscape

Bring in the Birds and Butterflies

Native Perennials for Your Garden

Five Easy Plants for Part Shade

Know Your Garden Site

- **Full Sun**
- **Part Shade**
- **Shade**

- **Dry**
- **Moist**
- **Wet**

- **Open Meadow**
- **Rain Garden**
- **Forest Floor**
- **Forest Canopy**

TEST Your Soil - www.soiltest.vt.edu

Look for the Guide

Native Plants for Northern Virginia

Native Perennials for Your Garden

Five Easy Plants for Shade


White Wood Aster
Eurybia divaricata
Sue Dingwell/VNPS


Heart's-a-bustin'
Euonymus americanus
VNPS Images


Blue-stemmed Goldenrod
Solidago caesia
Margaret Chatham/VNPS


Blue Lobelia
Lobelia siphilitica
Donna Murphy/VNPS


Dwarf Crested Iris
Iris cristata
Tony Garvey

Plant NoVA Natives Partnership

Partners
Virginia Coastal Zone Management Program
Northern Virginia Regional Commission
Virginia Department of Forestry
and organizations with similar goals, including
Virginia Native Plant Society
Audubon Society of Northern Virginia
Loudoun Wildlife Conservancy, others

Community Leaders
Plant NoVA Native Community Leaders are
Virginia Cooperative Extension Master Gardeners
Master Naturalists, Local Government,
Audubon at Home Ambassadors, others

Funding
Plant NoVA Natives is funded in part through grants from the US Department of Commerce and NOAA, to the VA Coastal Zone Management Program at the Department of Environmental Quality under the Coastal Zone Management Act of 1972, as amended

What Are Native Plants?

Native plant species evolved within specific regions and dispersed throughout their range without known human involvement. These plants form the primary structure of the living landscape and provide food and shelter for native animal species.

What Makes Them Easy?

All the plants in this brochure are “perennials” – meaning that they come back every year. They are native to Northern Virginia and are adapted to our local soils and climate. If you provide the right growing conditions in your garden, they are easy to grow and maintain.

Why Are Natives Important?

Native plants attract a variety of birds, butterflies, and other wildlife by providing diverse habitats and food sources. Native plants feed insect plant eaters that are the base of the food chain and are the food for our young birds. Native plants feed the pollinators: hummingbirds, bats, bees, beetles, butterflies, and flies that carry pollen from one plant to another as they collect nectar. Without pollinators, wildlife would have fewer nutritious berries and seeds, and we would miss many fruits, vegetables, and nuts. By planting a diverse palette of native plants to invite plant eating insects, and pollinators; and also their predators, seed dispersers and recyclers that make a garden work. Because our native plants and animals have evolved together, they support each other and we can enjoy a beautiful, living landscape.

For More Information on Native Plants:
www.plantnovanatives.org

Plant NoVA Natives

This brochure was produced by the Plant NoVA Natives campaign. The goal of the campaign is to promote the use of plants native to Northern Virginia in the urban and suburban landscapes of the region, and to increase their availability in local retail garden centers. The campaign is a partnership of:

Audubon at Home • Loudoun Wildlife Conservancy • Mason Sustainability Institute • Nature By Design • Northern Virginia Regional Commission • Northern Virginia Soil and Water Conservation District • Potowmack Chapter, Virginia Native Plant Society • Prince William Wildflower Society Chapter, Virginia Native Plant Society • Virginia Coastal Zone Management Program • Virginia Cooperative Extension • Virginia Department of Forestry • Virginia Master Gardeners • Virginia Master Naturalists

Virginia Coastal Zone MANAGEMENT PROGRAM

NOAA NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION U.S. DEPARTMENT OF COMMERCE

This project, Task # 54 was funded, in part, by the Virginia Coastal Zone Management Program at the Department of Environmental Quality through Grant FY11 # NA11NOS4190122 of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, under the Coastal Zone Management Act of 1972, as amended.

Plant NoVA Natives
Naturally Beautiful!

Five Easy Plants

For Part Shade

Margaret Chatham/VNPS

Native Perennials For Your Garden

Eastern Redbud - *Cercis canadensis*

- Mature height: 20 - 35 feet, small tree
- Blooms: pink, purple in April - May
- Natural habitat: moist, well drained woodlands
- Full sun, part shade, shade
- Moist, wet or dry sites on clay, sand or loam
- Fall color: golden yellow

Cinnamon Fern - *Osmundastrum cinnamomeum*

- Mature height: 2– 5 feet, fern
- Fruits: spore bearing spikes appear April- May
- Natural habitat: boggy areas, shaded ledges
- Muddy, sandy, clay or loam, acidic soils
- Full sun, part shade, shade

Maple-leaved Viburnum - *Viburnum acerifolium*

- Mature height: 6 - 15 feet, woodland shrub
- Blooms: white in May - June, dark blue berries yellow to wine-red foliage in fall
- Natural habitat: floodplain forests, dry wooded slopes, rock outcrops
- Full sun, part shade, shade
- Tolerant of dry to wet acidic soils and sands
- High wildlife value

Virginia Bluebells - *Mertensia virginica*

- Mature height: 1 - 2.5 feet, perennial flower
- Blooms: lavender-blue in March - May
- Natural habitat: moist, rich well-drained flood plains, slope forests
- Part to full shade
- Ephemeral: dies back in summer

Wild Red Columbine - *Aquilegia canadensis*

- Mature height: 1 - 3 feet, perennial flower
- Blooms: nodding, red and yellow, bell-like with upward spurred petals in March- May
- Natural habitat: dry rocky woodlands to moist, well-drained forests
- Part shade
- Sandy well-drained soils, medium loam
- Attracts many native bees, birds, butterflies

More Part Shade Loving Plants

Asarum canadense- Common Wild Ginger

Dicentra eximia - Wild Bleeding Heart

Geranium maculatum - Wild Geranium

Heuchera americana - American Alumroot

Itea virginica - Virginia Sweetspire

Lindera benzoin - Spicebush

Magnolia virginiana - Sweetbay Magnolia

Phlox paniculata - Garden Phlox

Polystichum acrostichoides - Christmas Fern

Sedum ternatum - Wild Stonecrop

Silene caroliniana - Wild Pink

Solidago flexicaulis - Zigzag Goldenrod

Sisyrinchium angustifolium - Blue-eyed Grass

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Virginia Coastal Zone MANAGEMENT PROGRAM

NOAA — National Oceanic and Atmospheric Administration — U.S. Department of Commerce

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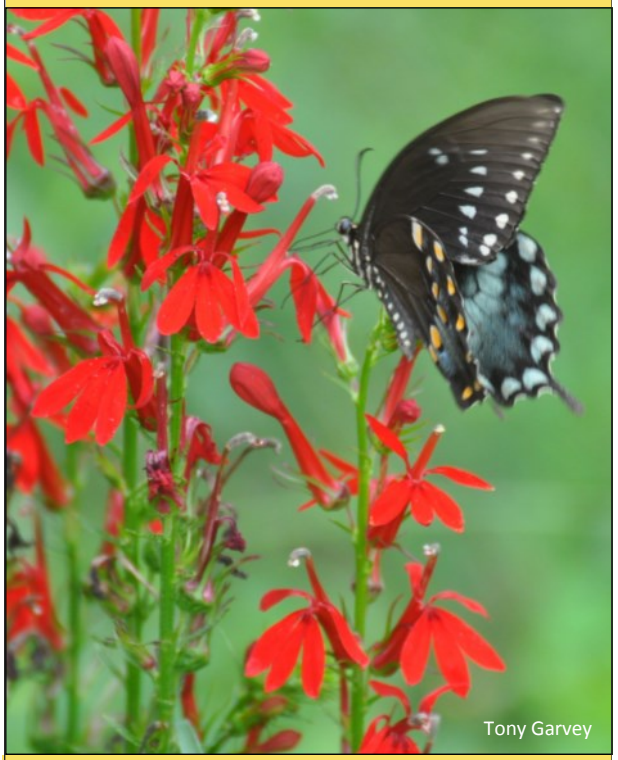
Plant NoVA Natives
Naturally Beautiful!

Five Easy Flowers

For Sun



Tony Garvey

Native Perennials For Your Garden

Butterfly Weed - *Asclepias tuberosa*

- Mature height: 1 - 3 feet
- Blooms: yellow-orange to bright orange in May-September
- Natural habitat: dry/rocky open woods, glades, fields and roadsides
- Full sun, part shade
- Moist or dry, well-drained sandy soils (tolerates drought and poor soil)

Whorled Coreopsis - *Coreopsis verticillata*

- Mature height: 6 inches - 3.5 feet
- Blooms: yellow in May - July
- Natural habitat: dry, open woods; well-drained,
- Primarily acidic soil; drought tolerant
- Full sun to part shade

Blue Wild Indigo - *Baptisia australis*

- Mature height: up to 5 feet
- Blooms: blue-purple and pea-like in April - May
- Natural habitat: dry to moist open woods, stream banks, floodplains
- Full sun
- Moist, usually sandy acidic soil

Cardinal Flower - *Lobelia cardinalis*

- Mature height: 1 - 6 feet
- Blooms: red in July - October
- Natural habitat: low areas, woodlands edge, stream banks, roadsides, meadows
- Full sun, part shade, shade
- Moist to wet, humus-rich, sandy and clay soil

Turk's-cap Lily- *Lilium superbum*

- Mature height: 4 - 8 feet
- Blooms: red, orange, yellow in July - September
- Natural habitat: wet meadows, swamps, woods
- Full sun
- Moist, loam, sand, acidic soils (good drainage essential)

More Sun Loving Flowers

Asclepias incarnata - Swamp Milkweed

Baptisia tinctoria - Yellow Wild Indigo

Chelone glabra - White Turtlehead

Eutrochium purpureum - Sweet Joe-pye-weed

Helianthus tuberosa - Jerusalem Artichoke

Hibiscus moscheutos - Swamp Rose-mallow

Monarda didyma - Scarlet Beebalm

Penstemon digitalis - Beardtongue

Solidago altissima - Tall Goldenrod

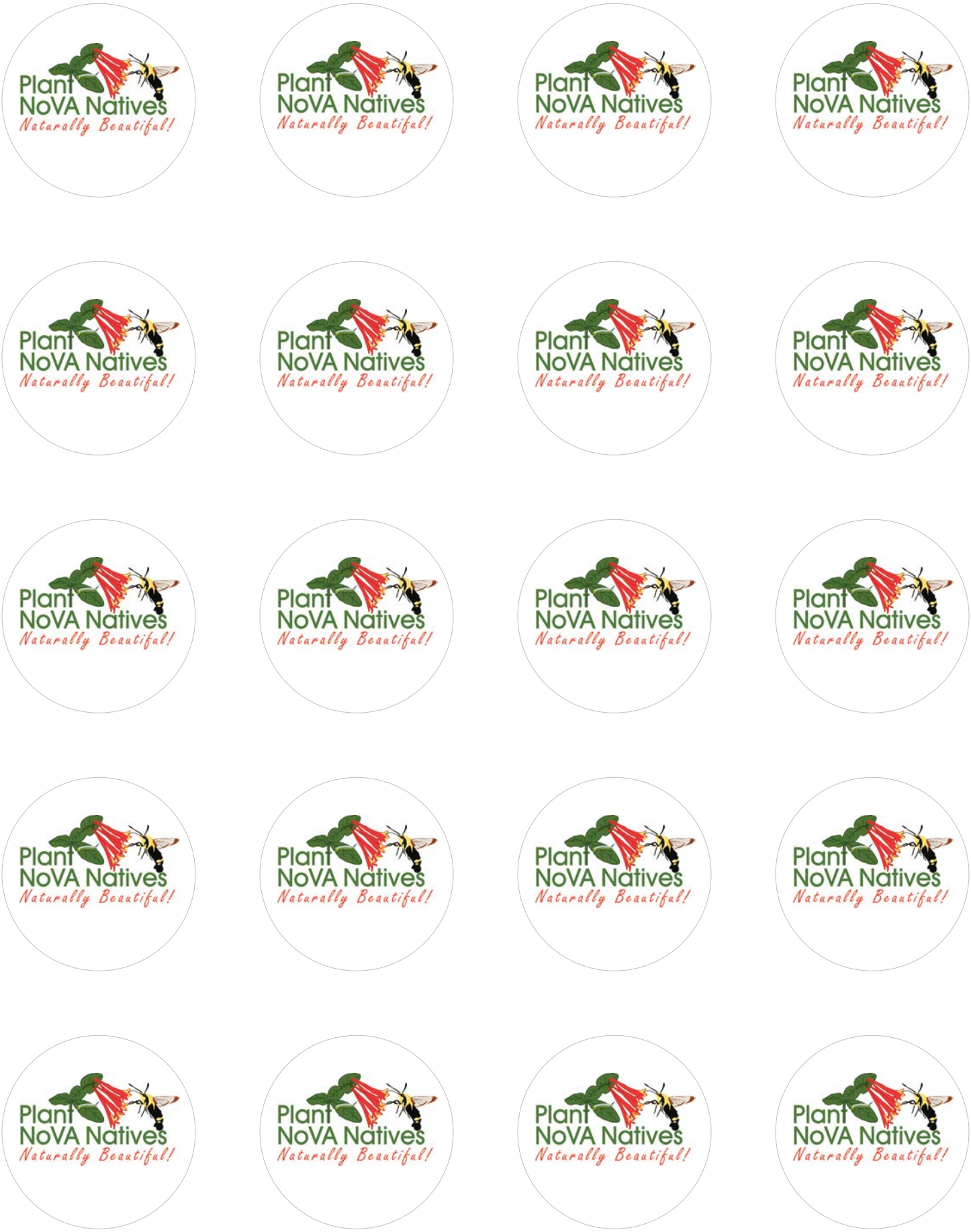
Solidago juncea - Early Goldenrod

Symphyotrichum nova-angliae - New England Aster

Symphyotrichum novi-belgii - New York Aster

Vernonia noveboracensis - New York Ironweed

Zizia aurea - Golden-alexanders


Plant
NoVA Natives
Naturally Beautiful!

Black Cohosh or Bugbane

Actaea racemosa

Laura Beaty, VNPS, Potowmack Chapter

Blooms: May - Aug

Height: 3 – 6.5 feet

Light: Part sun to shade (2-hour morning sun best)

Soil/Habitat: Moist rich woods, usu. base-rich soils

Attracts butterflies

Larval host for Spring Azure

Plant NoVA Natives
Naturally Beautiful!

White Snakeroot

Ageratina altissima

Laura Beaty, VNPS, Potowmack Chapter

Blooms: Jul - Oct

Height: 1 - 5 feet

Light: Light to full shade

Soil/Habitat: Dry to moist woods, thickets, meadows

Poisonous to grazing animals

Supports Conservation Biological Control
(A plant that attracts predatory or parasitoid insects that prey upon pest insects)

Plant NoVA Natives
Naturally Beautiful!

Nodding Wild Onion

Allium cernuum

Ginny Yacovissi, VNPS, Potowmack Chapter

Blooms: Jun - Aug

Height: 1 - 3 feet

Light: Full sun to part shade

Soil/Habitat: Dry open woods, rocky outcrops

Attracts hummingbirds, butterflies, including haistreak butterfly

Special value to native bees

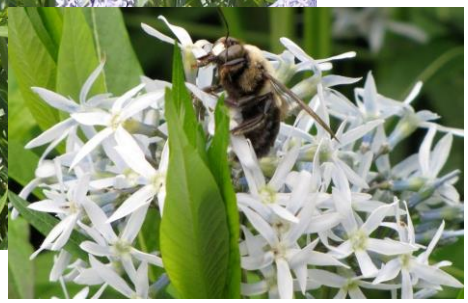
Supports Conservation Biological Control
(A plant that attracts predatory or parasitoid insects that prey upon pest insects)

Plant NoVA Natives
Naturally Beautiful!

Eastern Blue-star

Amsonia tabernaemontana

Ginny Yacovissi, VNPS, PotowmackChapter



Laura Beaty, VNPS, Potowmack Chapter

Deer resistant

Blooms: Apr - May

Height: 1 - 3 feet

Light: Full sun to part shade

Soil/Habitat: Wet to moist sandy soils in thin woods, floodplains, well-drained slope forests

Attracts hummingbirds, bumblebees, hummingbird moths, butterflies.

Plant NoVA Natives
Naturally Beautiful!

Thimbleweed

Anemone virginiana

Laura Beaty, VNPS, Powmack Chapter

Blooms: May - Jul

Height: 1.5 – 3.5 feet

Light: Sun to part shade

Soil/Habitat: Moist, well-drained forests to dry, rocky woodlands, barrens, old fields usually in base-rich soils

Attracts small bees

Deer and rabbit resistant

Plant NoVA Natives
Naturally Beautiful!

Plantain-leaved Pussytoes

Antennaria plantaginifolia

Donna Murphy, VNPS, Potowmack Chapter

Blooms: Mar - May

Height: 4 - 16 inches

Light: Full sun to part shade

Soil/Habitat: Dry, acidic, sandy or rocky, poor soils; barrens, esp. shale; dry woodlands with dappled sunlight; drought tolerant

Attracts birds, butterflies

Larval host to American Painted Lady

Good groundcover

Not deer resistant

Supports Conservation Biological Control
(A plant that attracts predatory or parasitoid insects that prey upon pest insects)

Plant NoVA Natives
Naturally Beautiful!

Wild Columbine

Aquilegia canadensis

Margaret Chatham, VNPS, Potowmack Chapter

Larval host to Columbine Duskywing

Blooms: Mar – May

Height: 1 - 3 feet

Light: Part Shade

Soil/Habitat: Dry rocky woodlands to moist, well-drained forests; prefers thin, sandy soils to medium loam; rock gardens; likes limestone

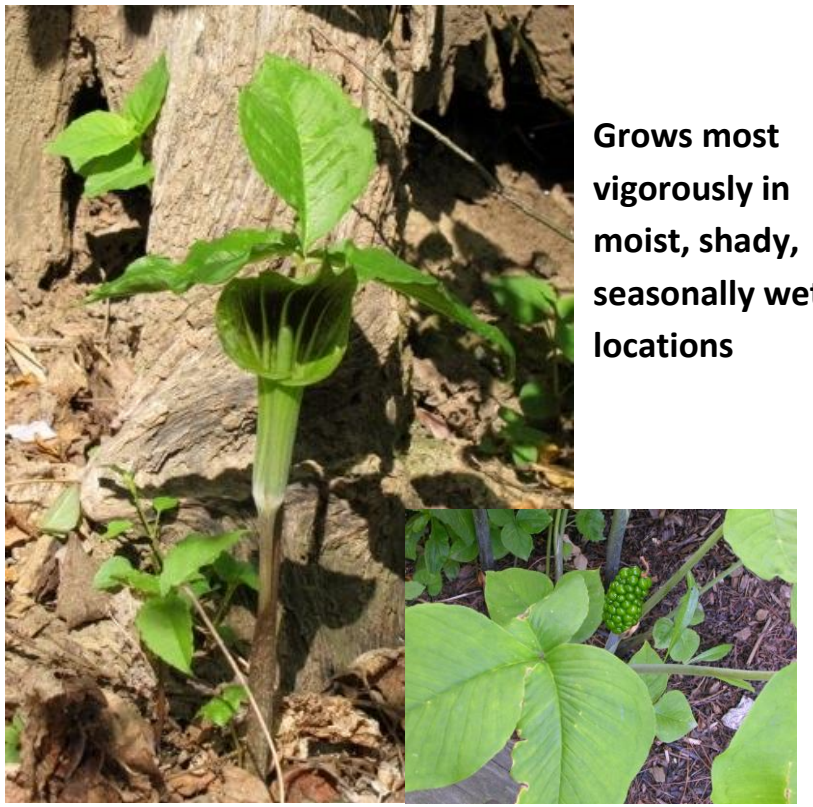
Short-lived plant, readily self-sows

Attracts hummingbirds, bees, butterflies and hawk moths

Plant NoVA Natives
Naturally Beautiful!

Jack-in-the-pulpit

Arisaema triphyllum



Laura Beaty, VNPS, Potowmack Chapter

Grows most vigorously in moist, shady, seasonally wet locations

Blooms: Mar - Apr

Fruit: Green berries turn to red in fall; food for birds and mammals

Height: 1 - 2 feet

Light: Part to full shade

Soil/Habitat: Moist to wet humus-rich woods, bogs, swamps

Excellent woods-garden plant; very easy to cultivate in variety of conditions

Plant NoVA Natives
Naturally Beautiful!

Goat's-beard

Aruncus dioicus

Margaret Chatham, VNPS, Potowmack Chapter

Blooms: May - Jun

Height: 3 - 8 feet

Light: Part sun to shade

Soil/Habitat: Moderate to dry rich woods, ravines, wooded roadsides, clearings; subject to sun scald when not moist enough

Attracts butterflies

Larval host to Dusky Azure

Needs space; good for large-scale displays massed in a drift down a slope; male plants have showier flowers

Plant NoVA Natives
Naturally Beautiful!

Wild Ginger

Asarum canadense

Laura Beaty, VNPS, Powmack Chapter

Mariann Watkins, Lady Bird Johnson Wildflower Center

Blooms: Apr - May

Height: 4 - 8 inches

Light: Part to full shade

Soil/Habitat: Moist, rich woodlands

Single flower reddish to greenish brown at ground level beneath leaves

Semi-evergreen, colonizing groundcover in shade

Seed dispersed by ants; larval host for Pipevine swallowtail butterfly

Plant NoVA Natives
Naturally Beautiful!

Swamp Milkweed

Asclepias incarnata

Laura Beaty, VNPS, Potowmack Chapter

Supports Conservation Biological Control
(A plant that attracts predatory or parasitoid insects that prey upon pest insects)

Blooms: Jul - Sep

Height: 1 - 5 feet

Light: Full sun to part shade

Soil/Habitat: Marshes, meadows, woods, shores; prefers moist to wet, neutral to acidic soil (can tolerate drought or mucky clay)

Attracts hummingbirds and butterflies

Special value to native bees and bumblebees, honeybees

Larval Host to Monarch and Queen butterflies

Plant NoVA Natives
Naturally Beautiful!

Common Milkweed

Asclepias syriaca

Laura Beaty, VNPS, Powmack Chapter

Blooms: Jun - Aug

Fruit: Jul – Sep, Pod

Height: 1.5 – 6.5 feet

Light: Full sun

Soil/Habitat: Fields, pastures, roadsides and other open disturbed habitats

Special value to bumble bees and other native bees, honeybees

Larval host for Monach butterfly

Spreads aggressive by roots

Supports Conservation Biological Control
(A plant that attracts predatory or parasitoid insects that prey upon pest insects)

Plant NoVA Natives
Naturally Beautiful!

Butterfly-weed

Asclepias tuberosa

Margaret Chatham, VNPS, Potowmack Chapter

Supports Conservation Biological Control
(A plant that attracts predatory or parasitoid insects that prey upon pest insects)

Blooms: May - Aug

Height: 1 - 3 feet

Light: Sun to light shade

Soil/Habitat: Dry woodlands, fields, roadsides

Attracts butterflies, hummingbirds

Larval host for Gray Hairstreak, Monarch, Queen butterflies

Special value to native bees and bumble bees, honey bees

Plant NoVA Natives
Naturally Beautiful!

Pawpaw

Asimina triloba

Laura Beaty, VNPS, Potowmack Chapter

Forms clonal colonies

Blooms: Mar - May

Fruit: Aug – Oct Yellow

Height: 20 - 50 feet

Light: Sun to part shade

Soil/Habitat: Moist base-rich soils, but also some acidic, nutrient-poor soils; well-drained floodplains to occas. dry upland forests

Attracts birds, butterflies, small mammals

Larval host for Zebra Swallowtail and Pawpaw Sphinx Moth

Plant NoVA Natives
Naturally Beautiful!

Southern Lady Fern *Athyrium asplenioides*

Laura Beaty, VNPS, Powmack Chapter

Blooms: Reproduces by spores May - Sep

Height: 1 - 3 feet

Light: Part shade

Soil/Habitat: Upland forests, well-drained flood plain forests and swamp forest hummocks

Good ground cover for wet areas

Provides cover for Woodhouse Toads and anoles (lizards)

Plant NoVA Natives
Naturally Beautiful!

Blue Wild Indigo

Baptisia australis

Laura Beaty, VNPS, Potowmack Chapter

Blooms: Apr - May

Height: Up to 5 feet

Light: Full sun

Soil/Habitat: Dry to moist open woods, streambanks, floodplains

Special value to native bees and bumblebees

Plant NoVA Natives
Naturally Beautiful!

White Doll's-daisy

Boltonia asteroides

Laura Beaty, VNPS, Potowmack Chapter

Supports Conservation Biological Control
(A plant that attracts predatory or parasitoid insects that prey upon pest insects)

Blooms: Jul - Nov

Height: 1 – 6.5 feet

Light: Sun to light shade

Soil/Habitat: Dry to wet gravelly shores, sandy thickets; tolerates clay; drought tolerant

Attracts butterflies (nectar)

Plant NoVA Natives
Naturally Beautiful!

Trumpet-creeper

Campsis radicans

Laura Beaty, VNPS, Potowmack Chapter

Blooms: Jun - Jul

Height: Vine; up to 35-foot spread

Light: Full sun to part shade

Soil/Habitat: Dry to moist woods, thickets, hillsides; various well-drained soils, sandy, loam, clay

Attracts hummingbirds and long-tongued bees

Larval host to Trumpet Vine Sphinx Moth

Vigorous climber; forms clonal colonies; plant where you can mow around to control

Plant NoVA Natives
Naturally Beautiful!

Appalachian Sedge

Carex appalachica

Laura Beaty, VNPS,
Potowmack Chapter

Fruiting: May - Jun

Height: 8 inches – 2 feet

Light: Part to full shade

Soil/Habitat: Moist to dry montane forests; well-drained soil

Groundcover

Deer resistant

Plant NoVA Natives
Naturally Beautiful!

Spreading Sedge

Donna Murphy, VNPS, Potowmack Chapter

Carex laxiculmis, var. laxiculmis

Blooms: May - Jun

Height: 6 – 20 inches

Light: Part to full shade

Soil/Habitat: Well-drained floodplain forests to moderately dry upland forests; most abundant in moist, acidic, nutrient-poor soils of stream bottoms and ravines. Occasionally in moderately base-rich soils and extending to higher elevations.

Evergreen; good groundcover in moist areas

Plant NoVA Natives
Naturally Beautiful!

Plantain-leaved Sedge

Carex plantaginea

Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center

Blooms: Apr - May

Height: 6 inches - 2 feet

Light: Prefers shade

Soil/Habitat: Moist, rich woods

Evergreen groundcover

Plant NoVA Natives
Naturally Beautiful!

Buttonbush

Cephalanthus occidentalis

Laura Beaty, VNPS, Powmack Chapter

Larval host and/or nectar source for Titan spyinx and Hydrangea sphinx moths

Blooms: Jun - Jul

Height: 6 - 18 feet

Light: Full sun to full shade

Soil/Habitat: Marshes, tidal shrublands, variety of disturbed wetlands, usually in seasonally or semiperm. flooded habitats -- ***can also grow in ordinary garden soil***

Attracts birds (seed) and butterflies (nectar)

Waterfowl and shorebirds feed on the seeds

Special value to bumble bees and other native bees, honeybees

Plant NoVA Natives
Naturally Beautiful!

Eastern Redbud

Cercis canadensis

Laura Beaty, VNPS, Potowmack Chapter

Larval Host to Henry's Elfin

Blooms: Mar - May
(Edible flowers)

Height: 15 - 40 feet

Light: Part to full shade

Soil/Habitat: Dry to moist, rich woods, often calcium-rich soils

Attracts birds, small mammals

Special value to native bees and bumble bees

Native leaf cutter bees prefer it

Plant NoVA Natives
Naturally Beautiful!

White Turtlehead

Chelone glabra

Margaret Chatham, VNPS, Potowmack Chapter

Blooms: Sep - Nov

Height: 16 inches - 6 feet

Light: Full sun to part shade

Soil/Habitat: Swamps, floodplain forests, stream banks, wet meadows

Requires the bumblebee for pollination, strongest of the bees and able to open and enter the flower

Attracts butterflies and hummingbirds

Larval host for Baltimore Checkerspot butterfly

Plant NoVA Natives
Naturally Beautiful!

Green-and-gold

Chrysogonum virginianum

Ginny Yacovissi, VNPS, Potowmack Chapter

Blooms: Mar - Jun

Height: Up to 20 inches

Light: Full sun to part shade

Soil/Habitat: Dry to moist, well-drained rocky open woods; (slopes where leaves don't collect) usu. base-rich soils

Good groundcover (keep free of leaf cover)

Plant NoVA Natives
Naturally Beautiful!

Maryland Golden-aster

Chrysopsis mariana

Margaret Chatham, VNPS, Potowmack Chapter

Blooms: Jun - Oct

Height: 8 inches - 3 feet

Light: Full sun to part shade

Soil/Habitat: Dry open woods, clearings, roadsides; well-drained soil

Plant NoVA Natives
Naturally Beautiful!

Spring Beauty

Claytonia virginica

Laura Beaty, VNPS, Potowmack Chapter

Supports Conservation Biological Control
(A plant that attracts predatory or parasitoid insects that prey upon pest insects)

Blooms: Mar - May (Often Feb or even Jan if mild)

Height: 2 - 16 inches

Light: Part to full shade

Soil/Habitat: Moist, rich woods, thickets, clearings; often but not limited to base-rich soils

Special value to native bees

Spreads over time

Ephemeral: Dies back in summer

Plant NoVA Natives
Naturally Beautiful!

Virgin's-bower

Clematis virginiana

Mrs. W.D. Bransford, Lady Bird Johnson Wildflower Center

Laura Beaty, VNPS, Potowmack Chapter

Blooms: Jul - Sep

Height: 6 - 16 feet (fine-textured vine)

Light: Full sun to full shade

Soil/Habitat: Moderate to dry woods, well-drained floodplain forests, clearings, roadsides

Attracts hummingbirds, butterflies

Poisonous to humans

Plant NoVA Natives
Naturally Beautiful!

Sweet Pepperbush

Clethra alnifolia

Margaret Chatham, VNPS, Potowmack Chapter

George H. Bruso, Lady Bird Johnson Wildflower Center

Very fragrant

Blooms: Jun - Jul

Height: 3 - 10 feet

Light: Sun to part shade (needs some sun to bloom)

Soil/Habitat: Moist to dry acidic upland forests, as well as swamps and bogs

Attracts bees, butterflies, hummingbirds, small mammals

Special value to native bees and bumblebees, honey bees

Plant NoVA Natives
Naturally Beautiful!

Mistflower

Conoclinium coelestinum

Laura Beaty, VNPS, Potowmack Chapter

Supports Conservation Biological Control
(A plant that attracts predatory or parasitoid insects that prey upon pest insects)

Blooms: Jul - Oct

Height: 1 - 3 feet

Light: Part sun to part shade

Soil/Habitat: Moist woods, meadows and other disturbed open or shaded sites; clay or loam

Attracts birds, butterflies

Special value to native bees

Good colonizing groundcover, spreads fast

Plant NoVA Natives
Naturally Beautiful!

Thread-leaf Coreopsis

Margaret Chatham, VNPS, Potowmack Chapter

Coreopsis verticillata

Blooms: May - Jul

Height: 6 inches – 3.5 feet

Light: Full sun to part shade

Soil/Habitat: Dry, open woods, well-drained primarily acidic soil, drought tolerant

Attracts birds, butterflies

Plant NoVA Natives
Naturally Beautiful!

Dutchman's Breeches

Dicentra cucullaria

Margaret Chatham, VNPS, Potowmack Chapter

Blooms: Mar - Apr

Height: 4 - 12 inches

Light: Part to full shade

Soil/Habitat: Moist, rich deciduous woods

Special value to bumblebees

Spring ephemeral

Plant NoVA Natives
Naturally Beautiful!

Wild Bleeding Heart

Dicentra eximia

Ginny Yacovissi, VNPS, Potowmack Chapter

Blooms: Apr – Jun

Height: 1.5 - 2 feet

Light: Part shade to full shade

Soil/Habitat: Rocky woods and cliffs, rich woods

Attracts birds and bees

Plant NoVA Natives
Naturally Beautiful!

Leatherwood

Dirca palustris

Laura Beaty, VNPS, Powmack Chapter

Blooms: Mar - Apr

Height: 3 - 10 feet

Light: Sun to shade

Soil/Habitat: Rich, moist, well-drained to dry forests, dry rocky woodlands, rich floodplains in calcium- and other mineral-rich soils and rocks -- most often on limestone

Contains toxic resin; contact can cause blisters

Slow-growing understory tree, always graceful, never needs pruning

Plant NoVA Natives
Naturally Beautiful!

Virginia Wild Rye

Elymus virginicus

Benny Simpson, Lady Bird Johnson Wildflower Center

Laura Beaty, VNPS, Potowmack Chapter

Blooms: Jun - Oct

Height: 1 - 5 feet

Light: Part to full shade

Soil/Habitat: Floodplain forests, moist to wet clearings, meadows, swamps; occ. upland forests

Attracts birds, butterflies, small mammals

Grass family is essential larval host for most branded skippers and most of the satyrs

Plant NoVA Natives
Naturally Beautiful!

Robin's Plantain

Erigeron pulchellus

Laura Beaty, VNPS, Potowmack Chapter

Blooms: Apr - Jun

Height: 4 inches - 2.5 feet

Light: Part shade

Soil/Habitat: Dry to moist open woods, meadows, wooded slopes, roadsides; often calcium-rich soils

Attracts small bees, small butterflies, skippers, moths

Supports Conservation Biological Control
(A plant that attracts predatory or parasitoid insects that prey upon pest insects)

Plant NoVA Natives
Naturally Beautiful!

Strawberry-bush (Heart's-a-bustin')

Euonymus americanus

Ginny Yacovissi, VNPS, Potowmack Chapter

Laura Beaty, VNPS, Potowmack Chapter

Blooms: May - Jun

Berries: Sep - Oct

Height: 3 – 6.5 feet

Light: Part shade (fruits best in light shade)

Soil/Habitat: Moist to dry woods and thickets

Not deer resistant

(they love it!)

Plant NoVA Natives
Naturally Beautiful!

Boneset

Eupatorium perfoliatum

Laura Beaty, VNPS, Potowmack Chapter

Supports Conservation Biological Control
(A plant that attracts predatory or parasitoid insects that prey upon pest insects)

Blooms: Aug - Oct

Height: 1 - 5 feet

Light: Full sun to full shade

Soil/Habitat: Floodplain forests, swamps, bogs, streambanks, low disturbed habitats

Attracts birds, butterflies, beneficial insects

Special value to native bees

Stem appears to pass through leaf

Plant NoVA Natives
Naturally Beautiful!

Winterberry

Ilex verticillata

Laura Beaty, VNPS, Potowmack Chapter

Need male and female plant to produce fruit

Blooms: Apr - May

Berries: Sep – Nov
Red berry on female plant only

Height: Up to 26 feet

Light: Full sun to full shade

Soil/Habitat: Swamps, bogs; occas. in moderate upland forests; tolerates poor drainage

Special value to honeybees

Attracts butterflies and birds (food, cover and nesting)

Larval host to Henry's Elfin

Plant NoVA Natives
Naturally Beautiful!

White Wood Aster

Eurybia divaricata

Laura Beaty, VNPS, Potowmack Chapter

Blooms: Aug - Oct

Height: 6 inches – 3.5 feet

Light: Open shade

Soil/Habitat: Medium to dry woods

Attracts butterflies

Plant NoVA Natives
Naturally Beautiful!

Grass-leaved or Common Flat-top Goldenrod

Euthamia graminifolia

Laura Beaty, VNPS, Powmack Chapter

Supports Conservation Biological Control
(A plant that attracts predatory or parasitoid insects that prey upon pest insects)

Blooms: Aug - Sep

Height: 1 - 5 feet

Light: Full sun to part shade

Soil/Habitat: Moist well-drained to wet disturbed forests, bottomland fields, meadows, roadsides, riverbanks

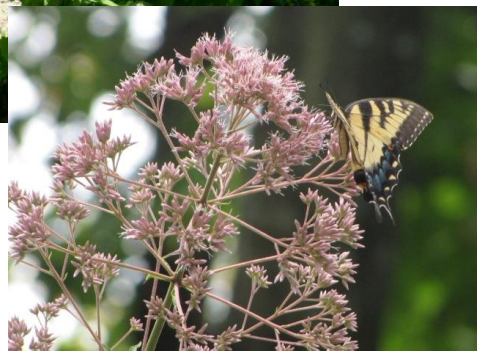
Special value to native bees

Attracts butterflies

Plant NoVA Natives
Naturally Beautiful!

Hollow Joe-pye-weed

Eutrochium fistulosum



Laura Beaty, VNPS,
Potowmack Chapter

Blooms: Jul - Oct

Height: 4 inches – 11.5 feet

Light: Part shade

Soil/Habitat: Medium to wet meadows, woods and fields; often base-rich soils; will tolerate dry shade

Attracts butterflies

Special value to native bees

Plant NoVA Natives
Naturally Beautiful!

Wild Strawberry

Fragaria virginiana

Ginny Yacovissi, VNPS, Potowmack Chapter

Supports Conservation Biological Control
(A plant that attracts predatory or parasitoid insects that prey upon pest insects)

Blooms: Apr - Jun

Height: Up to 1 foot

Light: Sun to part shade

Soil/Habitat: Moderate to dry woodlands, clearings, meadows; open, disturbed habitats

Attracts butterflies

Larval host to gray hairstreak

Special value to native bees

-

Plant NoVA Natives
Naturally Beautiful!

Wild Geranium

Geranium maculatum

Laura Beaty, VNPS, Potowmack Chapter

Blooms: Apr - Jun

Height: 8 - 28 inches

Light: Full sun to part shade

Soil/Habitat: Moderate to dry upland forests and floodplain forests; from highly acidic to calcium-rich soils

Attracts birds

Special value to native bees and bumblebees

Plant NoVA Natives
Naturally Beautiful!

Southern Sneezeweed

Helenium flexuosum
(formerly Helenium nudiflorum)

Ginny Yacovissi, VNPS, Potowmack Chapter

Blooms: May - Aug

Height: 8 inches - 3.5 feet

Light: Full sun

Soil/Habitat: Moist fields, clearings, river banks, roadsides

Special value to native bees

Plant NoVA Natives
Naturally Beautiful!

Thin-leaved Sunflower

Helianthus decapetalus

Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center

R.W. Smith, Lady Bird Johnson Wildflower Center

Blooms: Jul - Oct

Height: 1.5 - 8 feet

Light: Full sun to part shade

Soil/Habitat: Moist, sandy fields, bottomlands, stream banks, forest edge

Attracts birds, butterflies, bees

Special value to native bees

Larval host to Silvery Checkerspot, Painted Lady

Plant NoVA Natives
Naturally Beautiful!

Oxeye

Heliopsis helianthoides

Laura Beaty, VNPS, Potowmack Chapter

Blooms: May - Oct

Height: 1 - 5 feet

Light: Sun to part shade

Soil/Habitat: Dry to moist open woods, meadows, roadsides

Attracts hummingbirds, butterflies

Supports Conservation Biological Control
(A plant that attracts predatory or parasitoid insects that prey upon pest insects)

Plant NoVA Natives
Naturally Beautiful!

Halberd-leaf Rose-mallow

Hibiscus laevis

Margaret Chatham, VNPS, Potowmack Chapter

Flower opens by day, closes tightly at night; lasts one day

Blooms: Jun - Aug

Height: 2 – 6.5 feet

Light: Full sun

Soil/Habitat: Sandy, gravelly, muddy river shores; floodplain pools and ponds, ditches, disturbed alluvial wetlands

Attracts bumblebees and other native bees

Larval host of Gray Hairstreak, Painted Lady and Checkered Skipper butterflies

Plant NoVA Natives
Naturally Beautiful!

Swamp Rose-mallow

Hibiscus moscheutos

Laura Beaty, VNPS, Powmack Chapter

Blooms: Jun - Sep

Height: 3 - 10 feet

Light: Full sun

Soil/Habitat: Tidal marshes, swamps, salt scrub, floodplain pools and ponds, river shores, calcium-rich marshes, other disturbed wetlands

Attracts bumblebees and other native bees

Larval host of Gray Hairstreak, Painted Lady and Checkered Skipper butterflies

Flowers short-lived, up to two blooms per plant at once

Attracts hummingbirds

Plant NoVA Natives
Naturally Beautiful!

Common Bluets, Quaker-Ladies

Laura Beaty, VNPS, Potowmack Chapter

Houstonia caerulea

Blooms: Apr - May

Height: 2 - 8 inches

Light: Full sun to light shade

Soil/Habitat: Woodlands, fields, and other disturbed habitats; often rooted in moss

Good in rock garden; plant where leaves don't collect

Attracts small native bees and small butterflies

Plant NoVA Natives
Naturally Beautiful!

Oak-leaved Hydrangea

Hydrangea quercifolia

Margaret Chatham, VNPS, Potowmack Chapter

Blooms: Jun - Jul

Height: 3 - 12 feet

Light: Shade

Soil/Habitat: Moist, fertile, well-drained soils

Exfoliating bark; beautiful fall color

Blossom heads last all winter

Plant NoVA Natives
Naturally Beautiful!

Winterberry

Ilex verticillata

Laura Beaty, VNPS, Potowmack Chapter

Need male and female plant to produce fruit

Blooms: Apr - May

Berries: Sep – Nov Red berry on female plant only

Height: Up to 26 feet

Light: Full sun to full shade

Soil/Habitat: Swamps, bogs; occas. in moderate upland forests; tolerates poor drainage

Special value to honeybees

Attracts butterflies and birds (food, cover and nesting)

Larval host to Henry's Elfin

Plant NoVA Natives
Naturally Beautiful!

Dwarf Crested Iris

Iris cristata

Laura Beaty, VNPS, Potowmack Chapter

Blooms: Apr - May

Height: 4 - 16 inches

Light: Part shade to full shade

Soil/Habitat: Moist woodlands, both in acidic and basic soils; often in acidic mountain hollows and ravines

Blue-violet or less often white flower

Attracts hummingbirds, bees

Colonizes by rhizomes; separate plants as desired

Plant NoVA Natives
Naturally Beautiful!

Virginia Blue Flag

Margaret Chatham, VNPS, Potowmack Chapter

Iris virginica

Blooms: Apr - May

Height: Up to 3.5 feet

Light: Full sun to part shade

Soil/Habitat: Tidal marshes, wet meadows, disturbed wetlands, ditches and beaver ponds

Attracts birds, waterfowl, small mammals

Plant NoVA Natives
Naturally Beautiful!

Virginia Sweetspire

Itea virginica

Laura Beaty, VNPS, Powmack Chapter

Blooms: May - Jun

Height: 3 - 6.5 feet

Light: Full sun to full shade

Soil/Habitat: Swamp forests, seeps, acidic floodplain forests, streambanks

Cover for wildlife, attracts birds

Nectar for insects

Most effective in massed plantings; good for erosion control

Plant NoVA Natives
Naturally Beautiful!

Dense Blazing Star

Liatris spicata

Bob Yacovissi, VNPS, PotowmackChapter

Blooms: Jul - Oct

Height: 1 - 6.5 feet

Light: Full sun to part shade

Soil/Habitat: Moist meadows, average soil

Attracts birds, hummingbirds, butterflies

Special value to native bees and bumblebees

Plant NoVA Natives
Naturally Beautiful!

Spicebush

Lindera benzoin

"Forsythia of the woods" -- understory tree or shrub

Laura Beaty, VNPS, Potowmack Chapter

Need male and female plant to produce fruit

Blooms: Mar - Apr

Berries: Aug – Sep
Scarlet berries, female plants only

Height: 3 - 16 feet

Light: Shade; small amount of sun yields more berries

Soil/Habitat: Moist sandy loam as well as clay soil, well-drained woods; on uplands often in base-rich soils

Attracts birds, butterflies

Larval host for Eastern Tiger Swallowtail, Spicebush Swallowtail, and Promethea Silkmoth

Plant NoVA Natives
Naturally Beautiful!

Cardinal Flower

Lobelia cardinalis

Laura Beaty, VNPS, Potowmack Chapter

Blooms: Jul - Oct

Height: 1 - 8 feet

Light: Sun to shade

Soil/Habitat: Moist to wet humus-rich soil; marshes, wooded swamps, banks of ponds, rivers, streams (water well first year planted)

Long bloom time; biennial, must reseed (keep basal rosettes free from leaf cover in winter or will rot)

Attracts hummingbirds, butterflies

Plant NoVA Natives
Naturally Beautiful!

Great Blue Lobelia

Lobelia siphilitica

Laura Beaty, VNPS, Potowmack Chapter

Blooms: Jul - Oct

Height: 1.5 - 6 feet

Light: Sun to part shade

Soil/Habitat: Moist to wet woodlands, meadows, swamps, clay, loam or sandy

Not drought tolerant

Attracts birds, hummingbirds

Special value to native bees and bumblebees

Supports Conservation Biological Control
(A plant that attracts predatory or parasitoid insects that prey upon pest insects)

Plant NoVA Natives
Naturally Beautiful!

Trumpet or Coral Honeysuckle

Lonicera sempervirens

Laura Beaty, VNPS, Powmack Chapter

Larval host for Spring Azure, Snowberry Clearwing Moth

Blooms: Mar - Jul (sporadically through fall)

Fruit: Jul – Sep, red berry

Height: Up to 16 feet

Light: Full sun to part shade

Soil/Habitat: Moist well-drained to dry upland woodlands and forests,floodplain forests, dune scrub and other disturbed habitats

Attracts birds, bees, butterflies, hummingbirds

Special value to bumble bees

Plant NoVA Natives
Naturally Beautiful!

Fringed Loosestrife

Lysimachia ciliata

Margaret Chatham, VNPS, Potowmack Chapter

Blooms: Jun - Aug

Height: 4 inches - 4 feet

Light: Part shade, shade

Soil/Habitat: Moist and well-drained upland forests, swamps, moist to wet old fields and roadsides

Good ground cover in shade

Spreads by roots

Special value to native bees

Plant NoVA Natives
Naturally Beautiful!

Eastern Solomon's-plume

Maianthemum racemosum ssp. racemosum (Smilacina racemosa)

Margaret Chatham, VNPS, Potowmack Chapter

Blooms: Apr - Jun

Fruit: Aug – Oct
Red berries

Height: 8 – 32 inches

Light: Part to full shade

Soil/Habitat: Wide range of medium to dry, acidic to rich, upland woodlands; can be found in stunted form in drier open spaces

Attracts birds, small mammals

Not deer resistant

Plant NoVA Natives
Naturally Beautiful!

Ostrich Fern

Matteuccia struthiopteris

Gaylan Meyer, VNPS, Potowmack Chapter

Found at the Potomac River in Fairfax and Arlington Counties, VA

Blooms: Reproduces by spores Jul - Oct

Height: 1 - 4 feet

Light: Part shade to shade

Soil/Habitat: Rich alluvial forests, bottomland woods, moist, sandy soils

Fiddleheads are edible; best grown in large spaces

Edges of lateral leaflets on fertile fronds turned in to form a beaded plume persistent through winter

Spreads by roots

Plant NoVA Natives
Naturally Beautiful!

Virginia Bluebells

Mertensia virginica

Laura Beaty, VNPS, Potowmack Chapter

Blooms: Mar - May

Height: 8 – 28 inches

Light: Part to full shade

Soil/Habitat: Moist, rich, well-drained floodplains, slope forests

Ephemeral: Dies back in summer

Plant NoVA Natives
Naturally Beautiful!

Square-stemmed Monkeyflower

Mimulus ringens

Margaret Chatham, VNPS, Potowmack Chapter

Blooms: Jun - Sep

Height: 6 inches – 5 feet

Light: Sun to part shade

Soil/Habitat: Open swamps, wet meadows, shores, streambanks

Attracts butterflies

Larval Host to Common Buckeye, Baltimore Checkerspot

Spreads by roots as well as seed

Plant NoVA Natives
Naturally Beautiful!

Partridgeberry

Mitchella repens

Laura Beaty, VNPS, Potowmack Chapter

Two flowers form one fruit; berry edible but tasteless

Blooms: May - Jul (Fragrant)

Fruit: Jul - Dec
Scarlet berry (may persist through next year's bloom)

Height: 4 - 12 inches

Light: Part sun to full shade

Soil/Habitat: Dry to moist, rich, acidic woods

Evergreen groundcover in shade; slow creeper

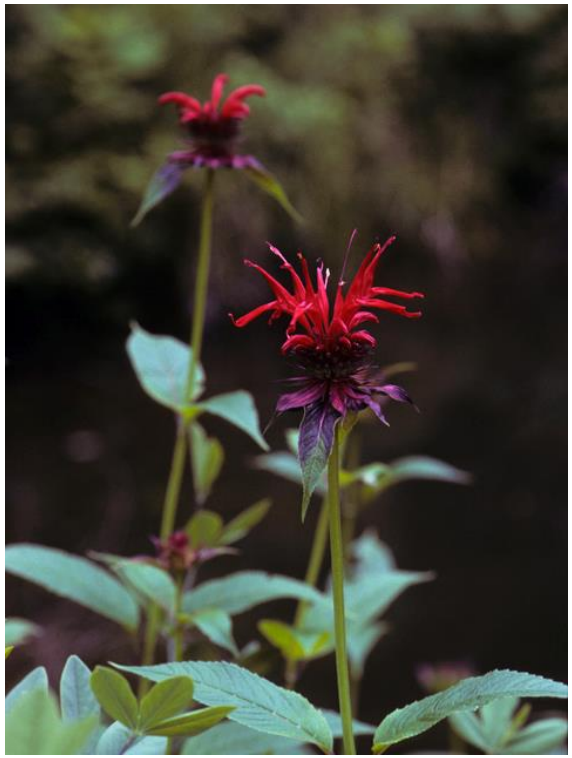
Keep free from being buried in leaf cover

Attracts birds and small mammals

Plant NoVA Natives
Naturally Beautiful!

Scarlet Beebalm

Monarda didyma



Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center

Blooms: Jul - Sep

Height: 1.5 – 6 feet

Light: Full sun to part shade

Soil/Habitat: Moist to wet creekbanks, meadows, floodplains, woods, acid soils

Attracts hummingbirds, butterflies

Special value to native bees and bumblebees

Plant NoVA Natives
Naturally Beautiful!

Wild Bergamot

Monarda fistulosa

Laura Beaty, VNPS, Powmack Chapter

Blooms: Jun - Sep

Height: 1.5 - 5 feet

Light: Full sun to part shade

Soil/Habitat: Moist to more often dry upland forests, clearings, usu. base-rich, clay to sand soils; heat tolerant

Special value to native bees, bumble bees

Resistant to deer

Attracts birds, hummingbirds, butterflies

Plant NoVA Natives
Naturally Beautiful!

Horsemint

Laura Beaty, VNPS, Powmack Chapter

Supports Conservation Biological Control
(A plant that attracts predatory or parasitoid insects that prey upon pest insects)

Monarda punctata

Blooms: Late Jul - Sep

Height: 1 – 3.5 feet

Light: Full sun to part shade

Soil/Habitat: Maritime forests, dune woodlands and grasslands, sandy upland forests, fields, roadsides

Attracts butterflies

Special value to bumble bees and other native bees, honeybees

Plant NoVA Natives
Naturally Beautiful!

Glade Mallow

Napaea dioica

Laura Beaty, VNPS, Powmack Chapter

Blooms: Jun - Aug

Height: 3 - 10 feet

Light: Part shade

Soil/Habitat: Low, moist floodplain meadow dominated by grasslike plants

Attracts bumble bees and other native bees

Provides cover for wildlife

Plant NoVA Natives
Naturally Beautiful!

Narrow-leaf Sundrops

Oenothera fruticosa

Mrs. W.D. Bransford, Lady Bird Johnson Wildflower Center

Blooms: Apr - Aug

Height: 1 - 3 feet

Light: Full sun to part shade

Soil/Habitat: Dry to moist woodlands, fields, roadsides

Attracts hummingbirds, birds, beneficial insects

Special value to native bees

Plant NoVA Natives
Naturally Beautiful!

Sensitive Fern

Onoclea sensibilis

Gaylan Meyer, VNPS, Potowmack Chapter

Also called "bead fern" because of fertile fronds that appear beaded.

Blooms: Reproduces by spores May - Jun

Height: 1 - 3 feet

Light: Sun to shade

Soil/Habitat: Floodplain forests, swamps and various moist to wet disturbed habitats

Attracts birds and small mammals

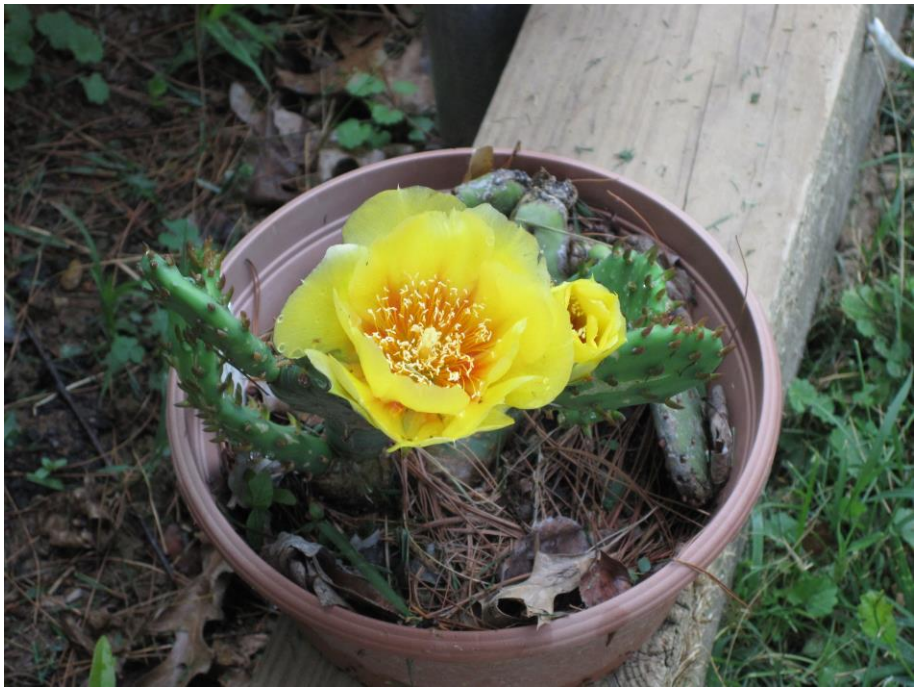
Shelters salamanders and frogs

Spreads by roots

Plant NoVA Natives
Naturally Beautiful!

Eastern Prickly-pear

Opuntia humifusa (cactus)



Margaret Chatham, VNPS, Potowmack Chapter

Blooms: May - Jun

Height: 6 - 16 inches

Light: Full sun

Soil/Habitat: Dry sandy coastal dunes, rocky soils, slopes

Forms large mats

Special value to native bees

Plant NoVA Natives
Naturally Beautiful!

Allegheny Spurge

Pachysandra procumbens

Laura Beaty, VNPS, Powmack Chapter

Blooms: Mar - May

Height: 4 - 9 inches

Light: Part shade, shade

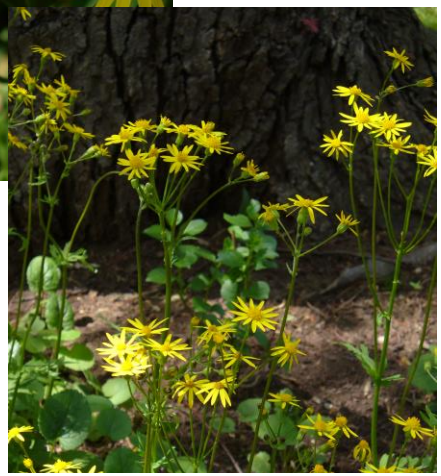
Soil/Habitat: Moist, humus-rich, acid soil. In the wild, found in rich soils with limestone substrate.

A lovely, well adapted, low groundcover for the Southeast woodland landscape or shade garden

Plant NoVA Natives
Naturally Beautiful!

Golden Ragwort

Packera aurea (Senecio aureus)



Roberta Day, VNPS, Potowmack Chapter

Blooms: Mar - Jun

Height: 1 – 4 feet

Light: Full sun to full shade

Soil/Habitat: Floodplain forests, moist meadows; can tolerate dryish areas; more numerous in base-rich soils

Attracts butterflies and bees

Toxic to humans

Fragrant; evergreen groundcover, energetic spreader

Plant NoVA Natives
Naturally Beautiful!

Switchgrass

Panicum virgatum

Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center

Blooms: Jun - Oct

Height: Up to 5 feet

Light: Full sun to part shade

Soil/Habitat: Dry prairies, dunes, open woods to wet meadows, marshes

Controls erosion

Attracts birds butterflies; provides nesting materials and cover

Larval Host to Delaware Skipper and essential larval host for most banded skippers and most of the satyrs

Plant NoVA Natives
Naturally Beautiful!

New York Fern

Laura Beaty, VNPS, Powmack Chapter

Spreads easily and forms colonies

Parathelypteris noveboracensis (Thelypteris noveboracensis)

Fruit: Jun - Sep

Height: 1 – 2.5 feet

Light: Part to full shade

Soil/Habitat: Dry to damp woods, well-drained floodplain forests, swamp hummocks; tolerates drought (may die back and return when it gets wetter)

Attracts birds and small mammals

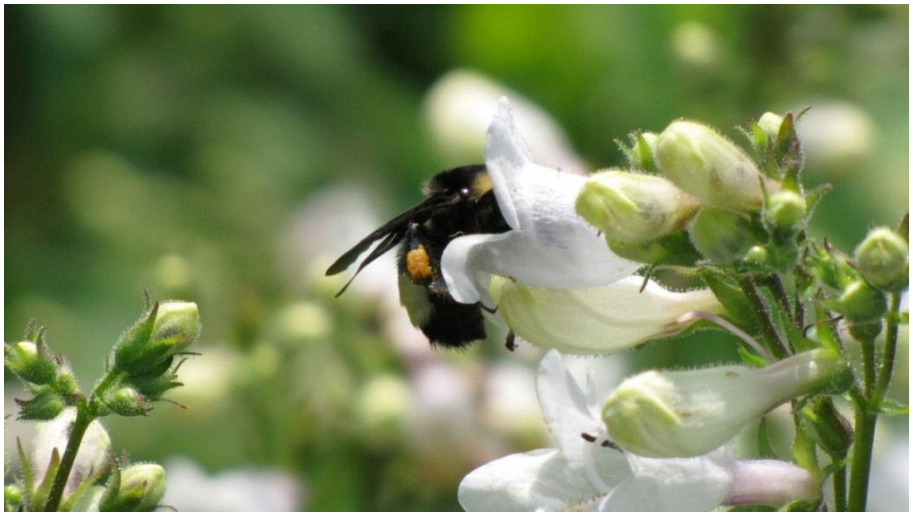
Shelter for toads

Not evergreen

Plant NoVA Natives
Naturally Beautiful!

Foxglove Beard-tongue

Penstemon digitalis



Laura Beaty, VNPS, Potowmack Chapter

Blooms: May - Jun

Height: 1.5- 6. 5 feet

Light: Full sun to part shade

Soil/Habitat: Wood margins, fields and other open, disturbed habitats

Attracts hummingbirds

Special value to native bees, bumblebees

Plant NoVA Natives
Naturally Beautiful!

Virginia Knotweed or Jumpseed

Laura Beaty, VNPS, Powmack Chapter

Persicaria virginiana
(Polygonum virginiana)

Blooms: Jul - Oct

Height: 1.5 - 5 feet

Light: Part shade

Soil/Habitat: Moist woodlands to drier upland forests, shaded disturbed habitats

Spreads readily

Cardinals relish the seeds

Plant NoVA Natives
Naturally Beautiful!

Wild Blue or Woodland Phlox

Phlox divaricata

Laura Beaty, VNPS, Potowmack Chapter

Blooms: Apr - May

Height: 5 inches to 2 feet

Light: Filtered sunlight to light shade

Soil/Habitat: Rich, well-drained floodplain forests to drier, open woods; sandy or rocky, well-drained soils

Attracts hummingbirds and butterflies

Dormant in summer

Not deer resistant

Plant NoVA Natives
Naturally Beautiful!

Creeping Phlox

Phlox stolonifera

Laura Beaty, VNPS, Potowmack Chapter

Campbell and Lynn Loughmiller,
Lady Bird Johnson Wildflower Center

Blooms: Apr - May

Height: 4 - 16 inches

Light: Part to full shade

Soil/Habitat: Acidic and humus-rich forests, occas. drier slope forests

Semi-evergreen groundcover

Attracts butterflies and beneficial insects

Plant NoVA Natives
Naturally Beautiful!

Frogfruit

Phyla lanceolata

Margaret Chatham, VNPS, Potowmack Chapter

Blooms: Jun - Nov

Height: 8 inches - 3 feet

Light: Full sun

Soil/Habitat: Tidal marshes, maritime swamps, seasonally exposed rock, sand gravel or mud bars and river shores

Attracts bumble bees and other native bees, small butterflies, flies

Foliage and seedheads eaten by Canada Geese

Plant NoVA Natives
Naturally Beautiful!

Obedient Plant

Physotegia virginiana

Roberta Day, VNPS, Potowmack Chapter

Blooms: Jul - Oct

Height: 1.5 - 5 feet

Light: Full sun

Soil/Habitat: Moist open areas, streambanks, shorelines

Attracts butterflies and beneficial insects

Vigorous grower, spreads rapidly by underground stems

Plant NoVA Natives
Naturally Beautiful!

Mayapple

Podophyllum peltatum

Margaret Chatham, VNPS, Potowmack Chapter

Blooms: Mar - May

Height: 8 inches – 1.5 feet

Light: Part to full shade

Soil/Habitat: Moist to drier humus-rich deciduous woods (not pine); shaded banks and various, moist, disturbed habitats

Spreads by roots; new colonies started by box turtles

Ephemeral: Dies back in summer

Plant NoVA Natives
Naturally Beautiful!

Jacob's Ladder

Polemonium reptans

Margaret Chatham, VNPS, Potowmack Chapter

Blooms: Apr - May

Height: 6 inches – 2 feet

Light: Part to full shade

Soil/Habitat: Moist, deciduous, humus-rich woods, streambanks; will go dormant in drought conditions

Special value to native bees, bumblebees

Plant NoVA Natives
Naturally Beautiful!

Solomon's-seal

Polygonatum biflorum

Margaret Chatham, VNPS, Potowmack Chapter

Blooms: Apr - Jun

Fruit: Aug
Blue-black berries

Height: 1 – 3 feet

Light: Part to full shade

Soil/Habitat: Wide range of moist to drier, acidic to rich upland forests, old fields

Attracts birds, butterflies

Plant NoVA Natives
Naturally Beautiful!

Christmas Fern

Polystichum acrostichoides

Margaret Chatham, VNPS, Potowmack Chapter

Fruit: Jun - Sep

Height: 10 inches – 2.5 feet

Light: Part to full shade

Soil/Habitat: Moist to drier forests, slopes, well-drained soil

Evergreen groundcover in shade

Plant NoVA Natives
Naturally Beautiful!

Orange Coneflower

Rudbeckia fulgida

Laura Beaty, VNPS, Powmack Chapter

Blooms: Aug - Oct

Height: 1 - 4 feet

Light: Full sun to part shade

Soil/Habitat: Dry to moist woodlands, fields, meadows, roadsides

Attracts birds, butterflies, beneficial insects

Flower may be orange at base of rays (not always)

Plant NoVA Natives
Naturally Beautiful!

Black-eyed Susan

Rudbeckia hirta

Margaret Chatham, VNPS, Potowmack Chapter

Deer resistant

Blooms: May - Jul

Height: 1 - 3.5 feet

Light: Full sun to part shade

Soil/Habitat: Fields, pastures, roadsides and clearings

Nectar source for bees, butterflies, other insects

Seeds eaten by birds

Larval host for Gorgone Checkerspot, Bordered Patch butterfly

Plant NoVA Natives
Naturally Beautiful!

Green-headed Coneflower

Rudbeckia laciniata

Margaret Chatham, VNPS, Potowmack Chapter

Blooms: Jul - Oct

Height: 3 - 10 feet

Light: Part shade

Soil/Habitat: Moist to wet, low, rich woods, wet meadows, slightly acid soil

Spreads fast; appropriate for large sites

Attracts birds

Special value to native bees, honey bees

Not resistant to deer

Plant NoVA Natives
Naturally Beautiful!

Three-lobed Coneflower

Rudbeckia triloba

Laura Beaty, VNPS, Potowmack Chapter

Margaret Chatham, VNPS, Potowmack Chapter

Blooms: Jul- Oct

Height: 1 - 5 feet

Light: Full sun to part shade

Soil/Habitat: Dry to moist fields, open woods

Attracts birds and butterflies

Biennial

Plant NoVA Natives
Naturally Beautiful!

Wild Petunia

Ruellia caroliniensis

Margaret Chatham, VNPS, Potowmack Chapter

Blooms: May - Sep

Height: 4 inches - 2 feet

Light: Part shade

Soil/Habitat: Moderate to dry woodlands to open, disturbed habitats; good drainage, tolerates drought

Explosively spreads its seeds

Attracts butterflies

Plant NoVA Natives
Naturally Beautiful!

Lyreleaf Sage

Salvia lyrata

Ginny Yacovissi, VNPS, PotowmackChapter

Blooms: Apr - May

Height: 8 – 28 inches

Light: Full sun to part shade

Soil/Habitat: Upland dry to moist woodlands and disturbed habitats, lawns, fields

Attracts butterflies, hummingbirds

Will self-seed

Good evergreen groundcover

Plant NoVA Natives
Naturally Beautiful!

Bloodroot

Sanguinaria canadensis

Margaret Chatham, VNPS, Potowmack Chapter

Blooms: Mar - Apr

Height: 4 - 15 inches

Light: Part to full shade

Soil/Habitat: Moist to dry upland forests, well-drained floodplain forests; dry calcium-rich soils, base-rich soils

Flower may last only a day if pollinated right away

Leaves can last until fall unless deer eat it or drought

Plant NoVA Natives
Naturally Beautiful!

Lizard's-tail

Saururus cernuus

Gaylan Meyer, VNPS, Potowmack Chapter

Good for wetland gardens, habitat

Blooms: May - Jul

Height: 1.5 - 4 feet

Light: Sun to part shade

Soil/Habitat: Swamps, pools, wet flatwoods, shaded and shallowly seasonally flooded soils

Attracts birds; valued by wood ducks

Deer resistant

Spreading groundcover for moist soils, shallow water; colonizes large areas

Plant NoVA Natives
Naturally Beautiful!

Little Bluestem

Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center

Provides nesting materials/ structure for native bees

Schizachyrium scoparium

Blooms: Aug - Oct

Height: 1 - 7 feet

Light: Full sun

Soil/Habitat: Dry open woods, pinelands, clearings, meadows, well-drained soil; tolerates poor soil

Attracts birds, butterflies, small mammals with seed, nesting materials, cover

Larval Host to Ottoe Skipper, Indian Skipper, Crossline Skipper, Dusted Skipper, Cobweb Butterfly, Dixie Skipper

Plant NoVA Natives
Naturally Beautiful!

Hyssop Skullcap

Scutellaria integrifolia

Joseph Allan Tauscher, Lady Bird Johnson Wildflower Center

Blooms: May - Jul

Height: 6 – 32 inches

Light: Full sun to part shade

Soil/Habitat: Dry to moist soils, swamps, bogs, moist woods, meadows; likes sandy soil

Short-lived plant, readily self-sows

Plant NoVA Natives
Naturally Beautiful!

Wild Stonecrop

Sedum ternatum

Laura Beaty, VNPS, Powmack Chapter

Blooms: Apr - Jun

Height: 2 - 8 inches

Light: Part shade to shade

Soil/Habitat: Well-drained floodplain forests, moist and well-drained upland forests, shaded ledges and outcrops, usually in base-rich soils

Evergreen, rock-loving, prostrate, spreading ground cover

Cuttings readily root and may be taken from sterile shoots at any time during the growing season

Plant NoVA Natives
Naturally Beautiful!

Cup Plant

Silphium perfoliatum

Laura Beaty, VNPS, Powmack Chapter

Supports Conservation Biological Control

(A plant that attracts predatory or parasitoid insects that prey upon pest insects)

Blooms: Jun - Aug

Height: 3 - 10 feet

Light: Full sun to full shade

Soil/Habitat: Floodplain forests, alluvial clearings

Small cup formed by leaves holds water; attracts birds for water and for seed

Nectar source for hummingbirds, butterflies; special value to bumble bees and other native bees, honeybees

Provides Nesting Materials/ Structure for Native Bees

Plant NoVA Natives
Naturally Beautiful!

Blue-eyed Grass

Sisyrinchium angustifolium

Margaret Chatham, VNPS, Potowmack Chapter

Blooms: Apr - Jun

Height: 8 – 20 inches

Light: Sun to part shade

Soil/Habitat: Moist to dry upland forests, meadows, damp fields, woods; poor to average soils

Drought tolerant

Member of the Iris family

Avoid heavy mulch; should be divided every other year

Plant NoVA Natives
Naturally Beautiful!

Blue-stemmed Goldenrod

Solidago caesia

Margaret Chatham, VNPS, Potowmack Chapter

Supports Conservation Biological Control
(A plant that attracts predatory or parasitoid insects that prey upon pest insects)

Blooms: Aug - Oct

Height: 1 - 4 feet

Light: Part sun to full shade

Soil/Habitat: Moist to dry upland forests, woodlands, edges, clearings; various soils

Attracts, birds, butterflies, small mammals

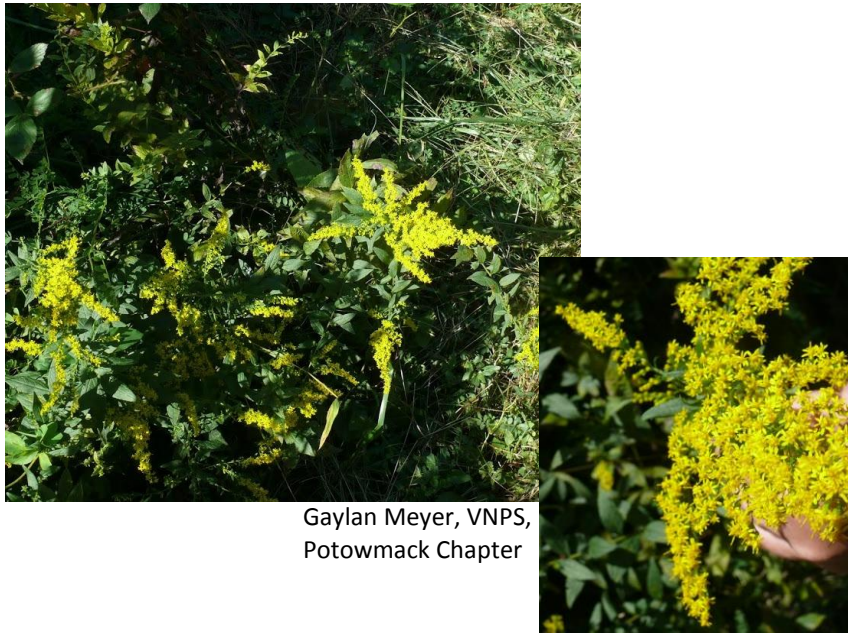
Special value to native bees

Special value to honey bees

Plant NoVA Natives
Naturally Beautiful!

Rough-stemmed Goldenrod

Solidago rugosa



Gaylan Meyer, VNPS, Potowmack Chapter

Supports Conservation Biological Control
(A plant that attracts predatory or parasitoid insects that prey upon pest insects)

Blooms: Aug - Oct

Height: 1 – 8 feet

Light: Full sun to part shade

Soil/Habitat: Wide range of habitats, incl. floodplain forests, swamps, moist well-drained upland forests, clearings, old fields, meadows and balds

Attracts birds

Special value to native bees, honey bees

Plant NoVA Natives
Naturally Beautiful!

Seaside Goldenrod

Solidago sempervirens

Mrs. W.D. Bransford, Lady Bird Johnson Wildflower Center

Supports Conservation Biological Control
(A plant that attracts predatory or parasitoid insects that prey upon pest insects)

Blooms: Aug - Nov

Height: 1 - 8 feet

Light: Full sun to part shade

Soil/Habitat: Coastal areas, dunes, sandy sites

Attracts birds, butterflies, small mammals

Special value to native bees, honeybees

May occur where road salts used

Plant NoVA Natives
Naturally Beautiful!

Limestone Goldenrod *Solidago sphacelata*

Laura Beaty, VNPS, Powmack Chapter

Blooms: Jul - Sep

Height: 1.5 - 5 feet

Light: Full sun

Soil/Habitat: Dry rocky forests, barrens; easily grown in average, dry to medium, well-drained soil

Tolerates poor, dry soils

Attracts butterflies

Plant NoVA Natives
Naturally Beautiful!

Indian Grass

Sorghastrum nutans

Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center

Blooms: Sep - Nov

Height: 1.5 – 8.5 feet

Light: Full sun

Soil/Habitat: Moist to dry prairies, dry slopes, borders of woods; tolerates range of soil chemistries

Attracts butterflies, birds, small mammals

Provides nesting materials/structure for native bees

Larval Host to Pepper-and-Salt Skipper Butterfly

Plant NoVA Natives
Naturally Beautiful!

Bladdernut

Staphylea trifolia

Margaret Chatham, VNPS, Potowmack Chapter

Forms clonal colonies

Blooms: Apr

Fruit: Jun - Sep
Yellow-green bladder

Sep – Oct ripens to red-brown capsule

Height: 3 - 16 feet

Light: Sun to full shade (prefers part shade)

Soil/Habitat: Moist rich woods, shores of lakes and ponds, rocky wooded streambanks; likes calcium-rich soils

Attracts small mammals

Plant NoVA Natives
Naturally Beautiful!

Coralberry

Symphoricarpos orbiculatus

Ginny Yacovissi, VNPS, Potowmack Chapter

Supports Conservation Biological Control

(A plant that attracts predatory or parasitoid insects that prey upon pest insects)

Blooms: Jul - Sep

Fruit: Sep – Nov
Pink/orange berries

Height: 1.5 - 6 feet

Light: Part to full shade

Soil/Habitat: Dry to moist woods, open woodlands, well-drained floodplains, fields; likes base-rich soils

Attracts birds, butterflies

Special value to native bees

Spreads rapidly; good for erosion control

Plant NoVA Natives
Naturally Beautiful!

Heart-leaved Aster

Symphyotrichum cordifolium

Laura Beaty, VNPS, Potowmack Chapter

Supports Conservation Biological Control
(A plant that attracts predatory or parasitoid insects that prey upon pest insects)

Blooms: Sep - Oct

Height: 8 inches - 7 feet

Light: Part sun to shade

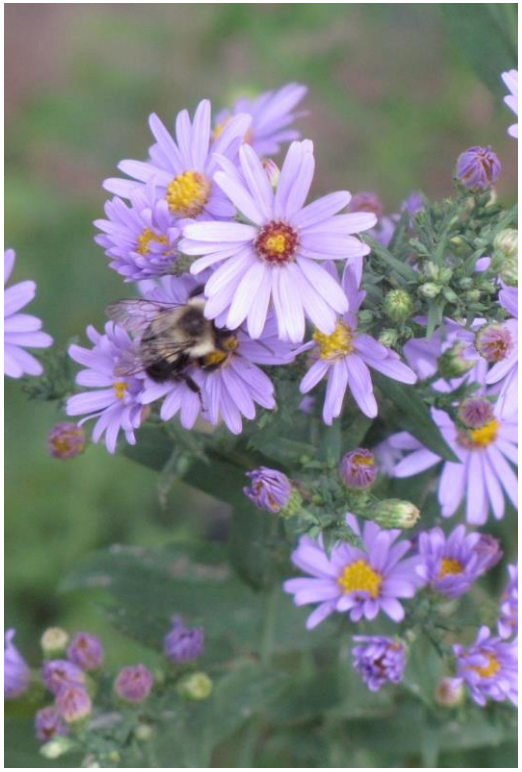
Soil/Habitat: Moist to dry upland forests, shaded road banks; tolerates range of soil chemistries

Attracts butterflies

Special value to native bees

Plant NoVA Natives
Naturally Beautiful!

Smooth Blue Aster



Laura Beaty, VNPS, Potowmack Chapter

Symphyotrichum laeve
(Aster laevis)

Blooms: Sep – Oct

Height: 1 – 3 feet

Light: Sun to part shade

Soil/Habitat: Well drained, dry open areas; forest edge

Special value to native bees

Attracts birds, butterflies

Larval host to Pearl Crescent

Plant NoVA Natives
Naturally Beautiful!

Frost Aster

Symphyotrichum pilosum

Buckeye Butterfly

Laura Beaty, VNPS, Powmack Chapter

Flower Fly

Blooms: Sep - Nov

Height: 4 inches - 5 feet

Light: Full sun to part shade

Soil/Habitat: Floodplain forests, river shores and bars, moist and well-drained to dry clearings, old fields, meadows, roadsides

Special value to native bees

Caterpillars of the Silvery Checkerspot and Pearl Crescent butterflies feed on the foliage

Plant NoVA Natives
Naturally Beautiful!

New England Aster

Symphyotrichum novae-angliae

Ginny Yacovissi, VNPS, Potowmack Chapter

Blooms: Sep - Oct

Height: 1.5 - 8 feet

Light: Full sun to part shade

Soil/Habitat: Spring marshes, wet meadows, moist clearings; tolerates dry soil/seasonal flooding

Special value to native bees, bumblebees, honeybees

Nectar source for Monarch; Larval host for Pearl Crescent and Checkerspot butterflies

Plant NoVA Natives
Naturally Beautiful!

Late Purple Aster

Symphyotrichum patens

Mrs. W.D. Bransford, Lady Bird Johnson Wildflower Center

Blooms: Aug - Nov

Height: 8 inches - 5 feet

Light: Part sun to light shade

Soil/Habitat: Dry upland forests, clearings, road banks; tolerates range of soil chemistries

Special value to native bees

Plant NoVA Natives
Naturally Beautiful!

Small White Aster

Symphyotrichum racemosum

Margaret Chatham, VNPS, Potowmack Chapter

Blooms: Aug - Sep

Height: 4 inches - 3 feet

Light: Full sun to part shade

Soil/Habitat: Floodplain forests, swamps, wet to fairly dry clearings, old fields, meadows, roadsides

Attracts butterflies

Special value to native bees

Plant NoVA Natives
Naturally Beautiful!

Germander

Teucrium canadense

Gaylan Meyer, VNPS, Potowmack Chapter

Blooms: Jun - Jul

Height: 1 - 5 feet

Light: Part shade

Soil/Habitat: Low, moist, well-drained forests, floodplain forests, swamps, riverbanks, wet meadows and other low disturbed habitats

Attracts butterflies

Long-tongued bees are most important pollinators, including bumblebees and other native bees, honeybees

Plant NoVA Natives
Naturally Beautiful!

Foam Flower

Tiarella cordifolia

Laura Beaty, VNPS, Potowmack Chapter

Blooms: Apr - Jun

Height: 4 - 20 inches

Light: Part sun to full shade

Soil/Habitat: Cool, moist, deciduous woods, streambanks; well-drained, humus-rich soils

Plant NoVA Natives
Naturally Beautiful!

Spiderwort

Tradescantia virginiana

Margaret Chatham, VNPS, Potowmack Chapter

Blooms: Apr - July
(may rebloom in fall)

Height: 2 – 24 inches

Light: Full sun to full shade

Soil/Habitat: Well-drained floodplain forests, moist to dry upland forests, limestone outcrops; usually in base-rich soils

Attracts butterflies

Special value to native bees and bumblebees

Plant NoVA Natives
Naturally Beautiful!

Large-flowered Bellwort

Uvularia grandiflora

Margaret Chatham, VNPS, Potowmack Chapter

Blooms: Mid-Apr to Mid-May

Height: 8 inches - 2.5 feet

Light: Shade

Soil/Habitat: Rich, moist to drier montane forests, especially in coves

Attracts bumble bees and other native bees

Not at all deer resistant

Plant NoVA Natives
Naturally Beautiful!

Perfoliate Bellwort

Uvularia perfoliata

Gaylan Meyer, VNPS, Potowmack Chapter

Blooms: Apr - early May

Height: 8 - 18 inches

Light: Sun

Soil/Habitat: Well-drained floodplain forests, moist and well-drained upland forests, most abundant in base-rich soils; also in dry rocky mineral-rich soils

Plant NoVA Natives
Naturally Beautiful!

Wingstem

Verbesina alternifolia

Margaret Chatham, VNPS, Potowmack Chapter

Blooms: Aug - Sep

Height: 3 - 10 feet

Light: Sun to part shade

Soil/Habitat: Floodplain forests, riverbanks, moist meadows and fields; also rich, moist to drier upland forests

Special value to native bees, bumblebees, honeybees

Plant NoVA Natives
Naturally Beautiful!

Yellow Crownbeard

Verbesina occidentalis

Laura Beaty, VNPS, Powmack Chapter

Blooms: Aug - Sep

Height: 3 - 10 feet

Light: Full sun to part shade

Soil/Habitat: Floodplain forests, moist well-drained to dry upland forests, rocky woodlands, old fields, pastures, roadsides and other disturbed habitats, usu. on base-rich soils

Special value to bumble bees and other native bees, honeybees

Plant NoVA Natives
Naturally Beautiful!

New York Ironweed

Vernonia noveboracensis

Margaret Chatham, VNPS, Potowmack Chapter

Blooms: Jul - Sep

Height: 3 – 6.5 feet

Light: Full sun to part shade

Soil/Habitat: Floodplain forests, riverbanks, wet meadows, occas. well-drained upland forests; can tolerate dry soil and clay

Attracts birds, butterflies

Special value to native bees

Plant NoVA Natives
Naturally Beautiful!

Culver's-root

Veronicastrum virginicum

Laura Beaty, VNPS, Powmack Chapter

Blooms: Jul - Aug

Height: 3 - 6.5 feet

Light: Full sun to part shade

Soil/Habitat: Dry, calcium- and mineral-rich woodlands, wet meadows and riversides

Attracts butterflies and bees

Plant NoVA Natives
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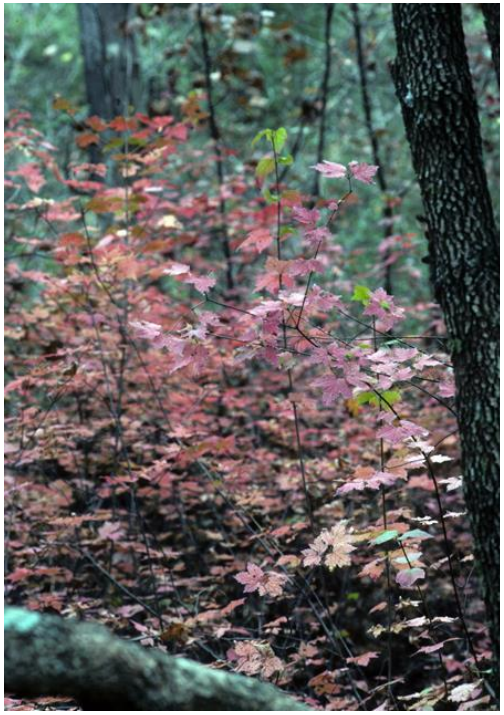
Maple-leaf Viburnum

Viburnum acerifolium



Mrs. W.D. Bransford, Lady Bird Johnson Wildflower Center

Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center

Blooms: Apr - Jun

Fruit: Jul - Oct
Blue to black berry

Height: 3 - 6 feet

Light: Full sun to full shade

Soil/Habitat: Moist to dry upland forests, dry wooded slopes, rocky slopes

Attracts birds, butterflies, bees

Larval host to Spring Azure butterfly

Good plum/pink autumn color, forms clonal colonies

Plant NoVA Natives
Naturally Beautiful!

Arrow-wood

Viburnum dentatum

Margaret Chatham, VNPS, Potowmack Chapter

Supports Conservation Biological Control

(A plant that attracts predatory or parasitoid insects that prey upon pest insects)

Blooms: Mar - May

Fruit: Jul – Sep
Blue to black berry

Height: 3 - 15 feet

Light: Full sun to full shade

Soil/Habitat: Dry to moist upland forests, floodplain forests; moist to wet, acid soils and sands

Attracts birds, butterflies

Special value to native bees, bumble bees

Larval Host to Spring Azure

Plant NoVA Natives
Naturally Beautiful!

Canada Violet

Viola canadensis

Margaret Chatham, VNPS, Potowmack Chapter

Blooms: Apr - Jul
(White; longest-lasting individual violet flowers)

Can re-bloom when rains come in late summer/fall

Height: 8 to 18 inches

Light: Shade

Soil/Habitat: Rich, well-drained floodplain forests, slope forests; dry to moist montane forests in calcium- and other mineral-rich soils

Attracts birds

Plant NoVA Natives
Naturally Beautiful!

Striped or Cream Violet

Viola striata

Margaret Chatham, VNPS, Potowmack Chapter

Blooms: Mar - Jun

Height: 2 - 28 inches

Light: Part shade

Soil/Habitat: Well-drained floodplain forests and moist upland forests

Attracts birds and small mammals

Larval host to fritillaries

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Naturally Beautiful!

Golden-alexanders

Zizia aurea

Laura Beaty, VNPS, Potowmack Chapter

Supports Conservation Biological Control
(A plant that attracts predatory or parasitoid insects that prey upon pest insects)

Blooms: Apr - May

Height: 1 - 3 feet

Light: Full sun to full shade

Soil/Habitat: Floodplain forests, swamps, seeps, moist or wet clearings

Attracts butterflies

Larval host to Black Swallowtail

Special value to native bees

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Northern Virginia Regional Commission
and Partners

Virginia Coastal Zone
MANAGEMENT PROGRAM

NOAA
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE

Background

Virginia Coastal Zone
MANAGEMENT PROGRAM

nvrc
Northern Virginia Regional Commission

www.plantnovanatives.org

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Partnership – Who Are We?

- **Partners**
  Organizations with similar goals, i.e.
  Audubon Society of Northern Virginia
  Loudoun Wildlife Conservancy, others

- **Community Leaders**
  Master Gardeners, Master Naturalists
  Local Government, Schools
  Audubon Ambassadors, others

… and You

Ask for Native Plants at your Plant Retailer to:

- Support wildlife
- Benefit pollinators
- Improve water quality

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Northern Virginia Landscape

www.plantnovanatives.org

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Northern Virginia Landscape

- Lawns, houses, pavement replace native vegetation
- Natural areas fragmented
- Residential landscape often comprised of non-native plants
- Landscape requires fertilizers, pesticides, mowing

Ecosystem Consequences

- Decrease in native songbirds, pollinators, other wildlife
- Increase in pollution and stormwater runoff
- Increase in invasive plant species

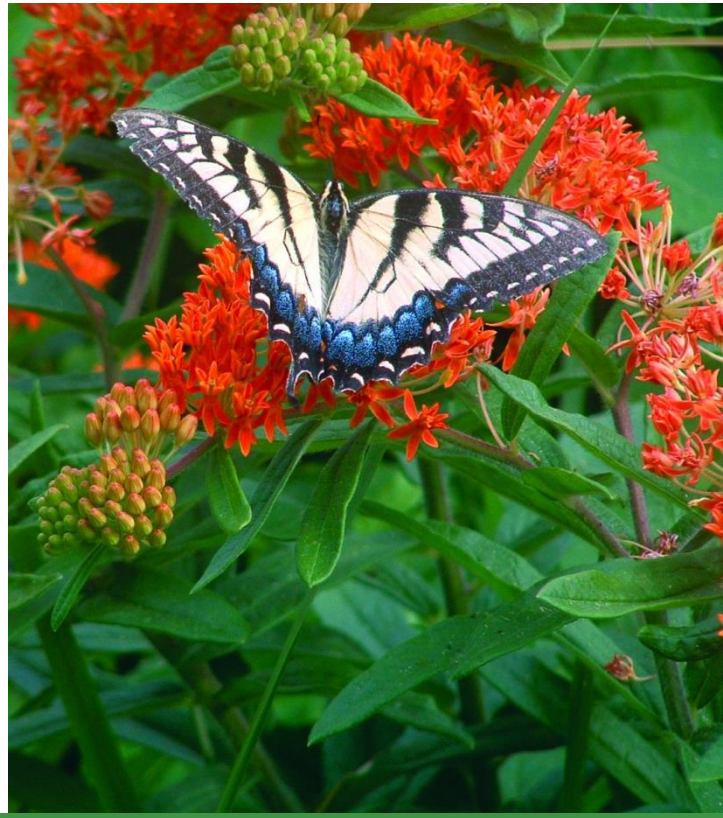
Campaign Goal

- Promote the use of native plants
- Increase the demand and supply of native plants

Why Grow NoVA Natives?

The Ecology of Native Plants

- What is a native plant?
- What do plants provide?
- Native *v*. non-native
- Public concerns



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What is a Native Plant?

Native plants evolve within specific regions and disperse throughout their range without known human involvement

Native plants form the primary component of the living landscape and provide food and shelter for native animal species

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Plants Provide Ecosystem Services

- Improve air quality
- Improve water quality
- Reduce run off
- Sequester carbon
- Provide wildlife habitat
- Affect human habitat

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Native *v.* Non-Native

All planted landscapes provide ecosystem services.
BUT, **only native plants** give:

- A ‘Sense of Place’
- Superior wildlife habitat
- Protect biodiversity

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A ‘Sense of Place’

Oak Hickory Forest of the Culpeper Basin, Fairfax County

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Superior Wildlife Habitat

- Energy flows from sun to plants to animals
- Main grazing pathway is via insects
- Native butterflies have native host plants
- Native berries high fat and protein content fuel birds for long-distance migrations
- Plant diversity leads to animal diversity

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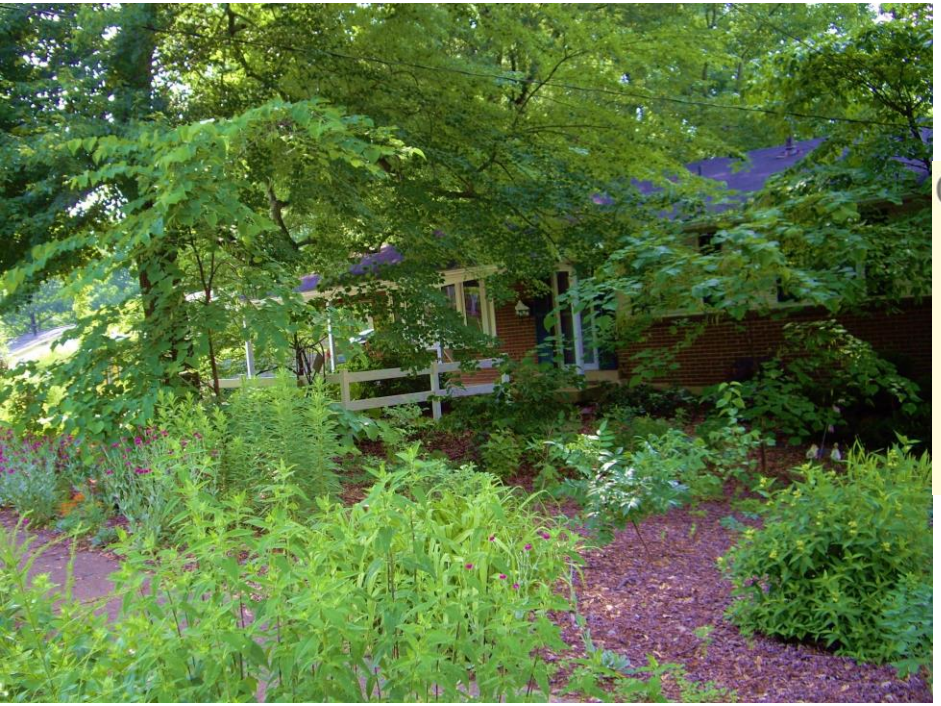
Naturally Beautiful!

‘Small’ Nature and Connectivity



‘Small’ nature in yards and vacant lots is important to conservation

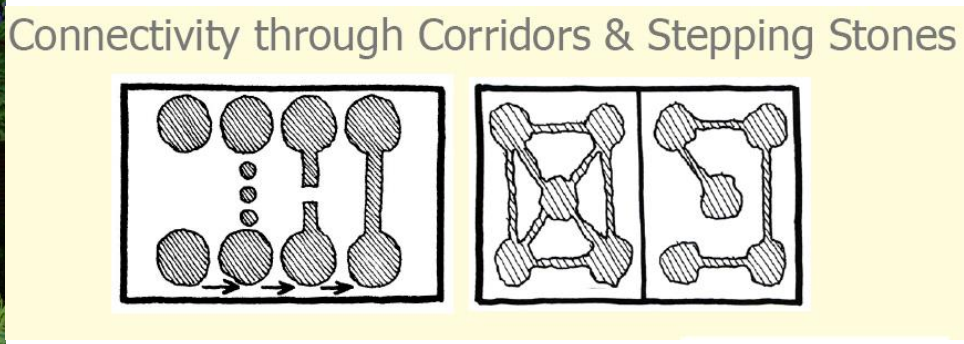


Diagram courtesy of
Green Infrastructure Institute.

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NoVA's Green Corridors

Public Concerns

Include:

- Bees
- Pollen
- Wildlife
- Plant ‘pests’

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What Natives to Plant?

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Oak-Hickory Forest

- Oak-Hickory Forest typical of Piedmont upland and related soils
- Forest canopy dominated by Oaks, including White, Black, Scarlet, and Chestnut Oaks
- Understory tree layer includes: Dogwood, Redbud, and Witchhazel
- Shrub layer includes: Low-bush Blueberry, and Maple-leaved Viburnum
- Groundlayer includes: Plaintain-leaved Pussytoes (*Antennaria plantaginifolia*), Whorled Coreopsis (*Coreopsis verticillata*), Common Azure Bluets (*Houstonia caerulea*) Partridgeberry (*Mitchella repens*), Violet Woodsorrel (*Oxalis violacea*), Beardtongue (*Penstemon digitalis*), Solomon's-seal (*Polygonatum biflorum*), Wild Pink (*Silene caroliniana*). New York Fern (*Parathelypteris noveboracensis*), and Pennsylvania Sedge (*Carex pensylvanica*)

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Your Garden

Plant NoVA Natives
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White Oak

Quercus alba

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Eastern Redbud

Cercis canadensis

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Maple-Leaved Viburnum

Viburnum acerifolium

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Plantain-Leaved Pussytoes

Antennaria plantaginifolia

Plant NoVA Natives
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Whorled Coreopsis

Coreopsis verticillata

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Beardtongue

Penstemon digitalis

Plant NoVA Natives
Naturally Beautiful!

Wild Pink

Silene caroliniana

Plant NoVA Natives
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Pennsylvania Sedge

Carex pensylvanica

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Cinnamon Fern

Osmundastrum cinnamomeum

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Native Plants

For all the right reasons:
Biodiversity * Wildlife Habitat *
Ecosystem Stability * Beauty

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Where to Plant Native Plants?

KNOW Your Site and Situation

- **Full Sun**
- **Part Shade**
- **Shade**
- **Dry**
- **Moist**
- **Wet**

- **Open Meadow**
- **Rain Garden**
- **Forest Floor**
- **Forest Canopy**

TEST Your Soil - www.soiltest.vt.edu

USE Guide to Native Plants for Northern Virginia

www.plantnovanatives.org

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Ask for Native Plants at your Plant Retailer to:

- Support wildlife
- Benefit pollinators
- Improve water quality

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Resources

www.plantnovanatives.org

Credits

Thanks to our many Plant NoVA Natives Partners

Special thanks for this presentation to
Alan Ford, James McGlone, Sue Dingwell, Dot Field,
Corey Miles, Virginia Witmer, Mary Van Dyke
and others

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Questions?

www.plantnovanatives.org

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Report for Plant NoVA Natives Information Booth

Please complete one form for each event that hosts a Plant NoVA Natives Information Booth.
And keep completed forms in this file for our Partner organizations to collect feedback. THANK YOU!

Date and Time of Event:

Name of Event:

Event Sponsored or Facilitated By
Organization:
Contact person and email/phone:

Estimate Number of Volunteers Facilitating Information Booth:

Estimated Number of Contacts:

Resources Handed Out:

Feedback and Impact from the Event:

Possible Improvements:

Thank you for taking time to report on this event for the Plant NoVA Natives campaign.
Your comments are appreciated and will enable us to improve outreach and communication on the campaign to encourage residents to ask for and plant more native plants!

www.plantnovanatives.org

Plant NoVA Natives

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Ask for native plants at your plant retailer to:

- Support wildlife
- Benefit pollinators
- Improve water quality

What Are Native Plants?

Native plant species evolved within specific regions and dispersed throughout their range without known human involvement. These plants form the primary structure of the living landscape and provide food and shelter for native animal species.

What Makes Them Easy?

All the plants in this brochure are “perennials” – meaning that they come back every year. They are native to Northern Virginia and are adapted to our local soils and climate. If you provide the right growing conditions in your garden, they are easy to grow and maintain.

Why Are Natives Important?

Native plants attract a variety of birds, butterflies, and other wildlife by providing diverse habitats and food sources. Native plants feed insect plant eaters that are the base of the food chain and are the food for our young birds. Native plants feed the pollinators: hummingbirds, bats, bees, beetles, butterflies, and flies that carry pollen from one plant to another as they collect nectar. Without pollinators, wildlife would have fewer nutritious berries and seeds, and we would miss many fruits, vegetables, and nuts. By planting a diverse palette of native plants, we invite not only the plant eating insects and pollinators; but also their predators, seed dispersers and recyclers that make a garden work. Because our native plants and animals have evolved together, they support each other and we can enjoy a beautiful, living landscape.

For More Information on Native Plants:
www.plantnovanatives.org

Plant NoVA Natives

This brochure was produced by the Plant NoVA Natives campaign. The goal of the campaign is to promote the use of plants native to Northern Virginia in the urban and suburban landscapes of the region, and to increase their availability in local retail garden centers. The campaign is a partnership of:

Audubon at Home • Loudoun Wildlife Conservancy • Mason Sustainability Institute • Nature By Design • Northern Virginia Regional Commission • Northern Virginia Soil and Water Conservation District • Potowmack Chapter, Virginia Native Plant Society • Prince William Wildflower Society Chapter, Virginia Native Plant Society • Virginia Coastal Zone Management Program • Virginia Cooperative Extension • Virginia Department of Forestry • Virginia Master Gardeners • Virginia Master Naturalists

Virginia Coastal Zone MANAGEMENT PROGRAM

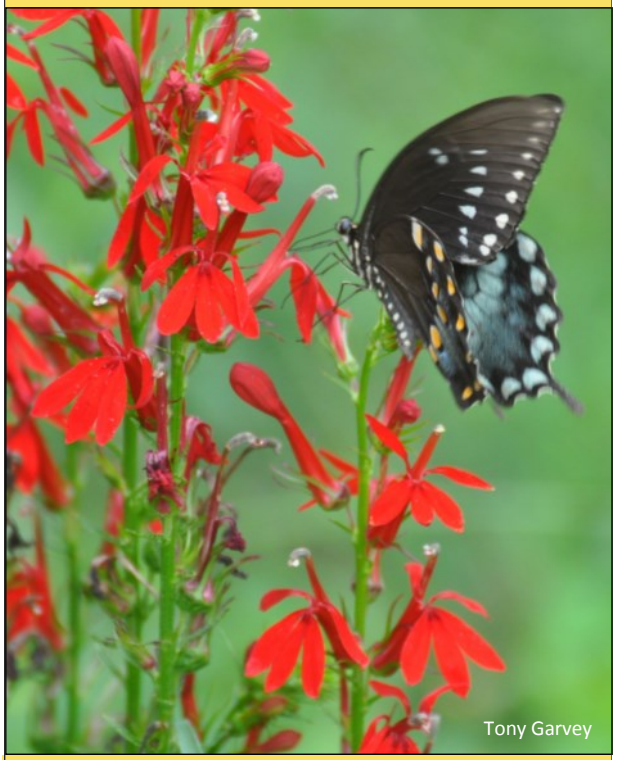
NOAA — National Oceanic and Atmospheric Administration — U.S. Department of Commerce

This project, Task # 54 was funded, in part, by the Virginia Coastal Zone Management Program at the Department of Environmental Quality through Grant FY11 # NA11NOS4190122 of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, under the Coastal Zone Management Act of 1972, as amended.

Plant NoVA Natives
Naturally Beautiful!

Five Easy Flowers

For Sun



Tony Garvey

Native Perennials For Your Garden

Butterfly Weed - *Asclepias tuberosa*

- Mature height: 1 - 3 feet
- Blooms: yellow-orange to bright orange in May-September
- Natural habitat: dry/rocky open woods, glades, fields and roadsides
- Full sun, part shade
- Moist or dry, well-drained sandy soils (tolerates drought and poor soil)

Whorled Coreopsis - *Coreopsis verticillata*

- Mature height: 6 inches - 3.5 feet
- Blooms: yellow in May - July
- Natural habitat: dry, open woods; well-drained,
- Primarily acidic soil; drought tolerant
- Full sun to part shade

Blue Wild Indigo - *Baptisia australis*

- Mature height: up to 5 feet
- Blooms: blue-purple and pea-like in April - May
- Natural habitat: dry to moist open woods, stream banks, floodplains
- Full sun
- Moist, usually sandy acidic soil

Cardinal Flower - *Lobelia cardinalis*

- Mature height: 1 - 6 feet
- Blooms: red in July - October
- Natural habitat: low areas, woodlands edge, stream banks, roadsides, meadows
- Full sun, part shade, shade
- Moist to wet, humus-rich, sandy and clay soil

Turk's-cap Lily- *Lilium superbum*

- Mature height: 4 - 8 feet
- Blooms: red, orange, yellow in July - September
- Natural habitat: wet meadows, swamps, woods
- Full sun
- Moist, loam, sand, acidic soils (good drainage essential)

More Sun Loving Flowers

Asclepias incarnata - Swamp Milkweed

Baptisia tinctoria - Yellow Wild Indigo

Chelone glabra - White Turtlehead

Eutrochium purpureum - Sweet Joe-pye-weed

Helianthus tuberosa - Jerusalem Artichoke

Hibiscus moscheutos - Swamp Rose-mallow

Monarda didyma - Scarlet Beebalm

Penstemon digitalis - Beardtongue

Solidago altissima - Tall Goldenrod

Solidago juncea - Early Goldenrod

Symphyotrichum nova-angliae - New England Aster

Symphyotrichum novi-belgii - New York Aster

Vernonia noveboracensis - New York Ironweed

Zizia aurea - Golden-alexanders

What Are Native Plants?

Native plant species evolved within specific regions and dispersed throughout their range without known human involvement. These plants form the primary structure of the living landscape and provide food and shelter for native animal species.

What Makes Them Easy?

All the plants in this brochure are “perennials” – meaning that they come back every year. They are native to Northern Virginia and are adapted to our local soils and climate. If you provide the right growing conditions in your garden, they are easy to grow and maintain.

Why Are Natives Important?

Native plants attract a variety of birds, butterflies, and other wildlife by providing diverse habitats and food sources. Native plants feed insect plant eaters that are the base of the food chain and are the food for our young birds. Native plants feed the pollinators: hummingbirds, bats, bees, beetles, butterflies, and flies that carry pollen from one plant to another as they collect nectar. Without pollinators, wildlife would have fewer nutritious berries and seeds, and we would miss many fruits, vegetables, and nuts. By planting a diverse palette of native plants to invite plant eating insects, and pollinators; and also their predators, seed dispersers and recyclers that make a garden work. Because our native plants and animals have evolved together, they support each other and we can enjoy a beautiful, living landscape.

For More Information on Native Plants:
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Plant NoVA Natives

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Audubon at Home • Loudoun Wildlife Conservancy • Mason Sustainability Institute • Nature By Design • Northern Virginia Regional Commission • Northern Virginia Soil and Water Conservation District • Potowmack Chapter, Virginia Native Plant Society • Prince William Wildflower Society Chapter, Virginia Native Plant Society • Virginia Coastal Zone Management Program • Virginia Cooperative Extension • Virginia Department of Forestry • Virginia Master Gardeners • Virginia Master Naturalists

Virginia Coastal Zone MANAGEMENT PROGRAM

NOAA NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION U.S. DEPARTMENT OF COMMERCE

This project, Task # 54 was funded, in part, by the Virginia Coastal Zone Management Program at the Department of Environmental Quality through Grant FY11 # NA11NOS4190122 of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, under the Coastal Zone Management Act of 1972, as amended.

Plant NoVA Natives
Naturally Beautiful!

Five Easy Plants

For Part Shade

Margaret Chatham/VNPS

Native Perennials For Your Garden

Eastern Redbud - *Cercis canadensis*

- Mature height: 20 - 35 feet, small tree
- Blooms: pink, purple in April - May
- Natural habitat: moist, well drained woodlands
- Full sun, part shade, shade
- Moist, wet or dry sites on clay, sand or loam
- Fall color: golden yellow

Cinnamon Fern - *Osmundastrum cinnamomeum*

- Mature height: 2– 5 feet, fern
- Fruits: spore bearing spikes appear April- May
- Natural habitat: boggy areas, shaded ledges
- Muddy, sandy, clay or loam, acidic soils
- Full sun, part shade, shade

Maple-leaved Viburnum - *Viburnum acerifolium*

- Mature height: 6 - 15 feet, woodland shrub
- Blooms: white in May - June, dark blue berries yellow to wine-red foliage in fall
- Natural habitat: floodplain forests, dry wooded slopes, rock outcrops
- Full sun, part shade, shade
- Tolerant of dry to wet acidic soils and sands
- High wildlife value

Virginia Bluebells - *Mertensia virginica*

- Mature height: 1 - 2.5 feet, perennial flower
- Blooms: lavender-blue in March - May
- Natural habitat: moist, rich well-drained flood plains, slope forests
- Part to full shade
- Ephemeral: dies back in summer

Wild Red Columbine - *Aquilegia canadensis*

- Mature height: 1 - 3 feet, perennial flower
- Blooms: nodding, red and yellow, bell-like with upward spurred petals in March- May
- Natural habitat: dry rocky woodlands to moist, well-drained forests
- Part shade
- Sandy well-drained soils, medium loam
- Attracts many native bees, birds, butterflies

More Part Shade Loving Plants

Asarum canadense- Common Wild Ginger

Dicentra eximia - Wild Bleeding Heart

Geranium maculatum - Wild Geranium

Heuchera americana - American Alumroot

Itea virginica - Virginia Sweetspire

Lindera benzoin - Spicebush

Magnolia virginiana - Sweetbay Magnolia

Phlox paniculata - Garden Phlox

Polystichum acrostichoides - Christmas Fern

Sedum ternatum - Wild Stonecrop

Silene caroliniana - Wild Pink

Solidago flexicaulis - Zigzag Goldenrod

Sisyrinchium angustifolium - Blue-eyed Grass

Plant NoVA Natives
Naturally Beautiful!

HOME | NOVA NATIVE PLANTS | TAKE ACTION | ABOUT | RESOURCES

NoVA Native Plants | Where Can I Buy Them? | Visit Native Gardens

Request a Presentation

Bring the campaign to your neighborhood! To request a presentation about native plants for your community or group, contact a local group such as the Virginia Native Plant Society, Master Gardeners, Master Naturalists or Audubon At Home Ambassadors.

Request a Site Visit

Plant NoVA Natives partner organization, Audubon At Home will come to your home or garden and offer recommendations customized for your site.
To request a site visit, contact Audubon at Home

Why Native Plants?

- Native plants support wildlife
- Native plants benefit pollinators
- Native plants improve water quality

Why Plant NoVA Natives?

Plant NoVA Natives makes using native plants in the Northern Virginia landscape easy and fun by reaching out to homeowners, partnering with garden centers and supporting community leaders.

Loss and fragmentation of the native landscape in Northern Virginia has impacted the ecological integrity of the region. Wildlife habitat, water quality, air quality as well as the historic, natural character has suffered. Although much of Northern Virginia has already been converted to pavement or lawns, gardeners can make a difference in the ecological sustainability of our region by planting native plants.

The Plant NoVA Natives campaign features plants that have appealing foliage, berries and flowers that can make your landscape unique, attractive and welcoming not only for people, but also for local wildlife. Because they are naturally adapted to our local soils and climate, these native plants are also easy to maintain when given the appropriate growing conditions.

The Guide to Native Plants for Northern Virginia

The purpose of this guide is educate landscapers, gardeners, and others about plant species that are native to Northern Virginia and the benefits these plants contribute to the Northern Virginia landscape.

The guide is free and available to download online at http://goo.gl/r2fxDkp
Print copies are available.

Photo Credits:
Rudbeckia hirta, Dot Field/DCR; Lobelia cardinalis, Tony Garvey; Aquilegia canadensis,VNPS Images; Passiflora incarnata, Ken Landeau; Ilex verticillata, Gary Fleming/DCR; Geranium maculata, Judy Gallagher; Viola sororia, Judy Gallagher

APPENDIX D-1: MEETING SUMMARIES

Regional Native Plant Campaign
MEETING NOTES

October 31, 2011
1 – 3 pm
NVRC – Chesapeake Conference Room
3060 Williams Drive, Suite 510
Fairfax, VA 22031

Summary

Meeting agenda is provided as Appendix A
Participants and a list of invitees are provided in Appendix B

The purpose of the meeting was to introduce the Regional Native Plant Campaign in Northern Virginia, an effort to make it easier for the common home gardener to locate native plants at local garden centers and nurseries. Participants were invited to describe their efforts and to brainstorm elements for consideration in the regional effort.

Laura Grape (NVRC), Jim McGlone (Virginia DOF), and Virginia Witmer (Virginia CZM) provided background information as to the initiation of the project and the efforts done on the Eastern Shore. Descriptions of the Regional Native Plant Campaign in Northern Virginia and the Plant ES Natives effort were provided, as well. More information on the Plant ES Natives Campaign is available online at: http://www.deq.state.va.us/coastal/go-native.html

There was general consensus that this campaign should focus on increasing the visibility of native plants through point of purchase materials targeted at home gardeners. To set the stage for creating a social norm for the use of native plants, the first step in the campaign will be to conduct pre-campaign research. Participants agreed that this research is critical in understanding the knowledge, attitudes, and current behaviors of consumers and will ultimately support the development of messages and placement of campaign materials. The Department of Conservation's Division of Natural Heritage is in the process of developing regional lists of native plants for the Piedmont and Coastal Plain, based on the Flora of Virginia Project, which will serve as the primary native plant lists for this campaign To supplement these plant lists, there are many great sources of information about individual plants, e.g. growing requirements, such as the new Native Plant Center – http://www. and the Lady Bird Johnson Wildlflower Center – http://www.wildflower.org

Additionally, the campaign in Northern Virginia will be closely tied to the efforts of the Virginia Native Plant Marketing Partnership, spearheaded by Virginia Coastal Zone Management Program. Communication and education material available from partners in the effort or l developed through this partnership will be readily available for use in Northern Virginia.

Additionally, ideas presented at the meeting suggest that the campaign has the potential to grow in the future in the following ways:

- Identifying opportunities to engage wholesale perennial growers; and
- Engaging homebuilders in developing a native option for new homes and possibly incorporating natives in the landscapes of model homes.

The Partners agreed that information developed through the Eastern Shore Natives campaign could be modified for use in Northern Virginia. The next meeting in late-November/early-December will focus on revising the survey conducted on the Eastern Shore to collect market research in Northern Virginia and also participants will discuss information for inclusion in the Community Leader training modules.

Discussion of Ongoing Efforts

There seems to be no shortage of efforts that promote the use of native plants in Northern Virginia and there are many organizations that provide semi-annual sales. However, coordinators of the efforts consistently state that participants find it difficult to locate natives at retail establishments and agree that an effort to improve the visibility of natives through a point of purchase campaign would greatly support these ongoing programs. These programs include:

Plant More Plants – www.plantmoreplants.com

- This effort is coordinated by the Virginia Department of Conservation and Recreation as part of the Chesapeake Club. Gary Waugh is the point of contact: gary.waugh@dcr.virginia.gov.
- Social marketing effort with the goal of reducing dependence on turf by planting any other kind of vegetation as a means of improving water quality for the Chesapeake Bay (i.e. reduce use of fertilizers).
- Not specifically a native plant campaign, although it stresses the importance of using natives and not using invasive plants in designing home landscapes.
- Uses a multi-media approach through television PSAs, Facebook, Twitter, blogging, and printed materials.
- Campaign partners are already exploring opportunities to engage and work more closely with retail establishments.

Audubon at Home – www.audubonva.org/index.php/audubon-at-home

- Coordinated by the Audubon Society of Northern Virginia. Cliff Fairweather is the point of contact: cliff@audubonva.org.
- Focuses on landscaping with wildlife in mind to encourage a more natural and native landscape.
- The use of natives is a primary focus to support primary productivity. However, ASNV encourages homeowners to enhance their property with natives, not necessarily remove all non-natives.
- The program developed a brochure that features several demonstration gardens providing examples of landscapes that use native plants to create wildlife habitat.
- Primary method for outreach is through word of mouth and hosting workshops.

Virginia Cooperative Extension's Best Management Practices – www.pwcgov.org/docLibrary/PDF/13895.pdf

- The Virginia Cooperative Extension established a set of best management practices for landscaping, which are transferable among different scales (e.g. individual homes to common lands).
- VCE – Fairfax manages the Master Gardeners program, with over 450 MG volunteers.
- VCE programs provide various trainings and workshops beginning in early-winter.

Opportunities for a Collaborative Campaign in NoVA Brainstorm

While the market research will guide the development of products and messages, participants suggested several ideas for potential inclusion in a Native Plant Campaign in Northern Virginia, including:

Considerations for a NoVA Native Plant Campaign

- Keep messaging and products simple
- Need to clearly describe why natives are important
- Define what we mean by native (regional)
    - Use regional plant lists developed by DCR - DNH
- Utilize common names and scientific names
- Messages should seek to break the mystique surrounding the use of native plants

- Explain cultivars
- Utilize Extension's BMP for messages

Short-Term Opportunities for the NoVA Native Plant Campaign

- Perform an evaluation of the training
- Create a QR code for all campaign promotion that would link back to the campaign website.
- Develop Facebook and other social media websites
- Promote Watershed-friendly garden tours
- Create a interesting and dynamic brand [consider taking advantage of the great products developed through the Plant More Plants campaign, so this serves as a companion to that effort versus a competitor]
- Make it easy for retail establishments to integrate this into their programs. Pilot this at one or two partnering locations.
- Use banners and kiosks to promote at point of purchase.

Possible Additional Partners

- Virginia Nursery and Landscape Association (VCE are members)
- Garden Clubs of America
- Federation of Garden Clubs
- Prince William Wildflower Society
- Signs by Tomorrow (FCRP has an existing partnership with them)

Long-Term Strategies

- Explore opportunities for partnering with homebuilders to develop a demonstration gardens at Model home sites [Stanley Martin, Winchester, possibly Toll Brothers]
- Engage wholesale perennial growers in integrating branded material into their efforts.
    - Participate in the Mid-Atlantic Nursery Tradeshow (annual show takes place in January, in Baltimore, MD)

Next Steps & Homework

The next meeting will take place in late-November/early-December. Laura will send out potential meeting dates. This first official meeting of the Partners will focus on developing a survey tool to conduct market research and items of interest for inclusion as part of the training module.

Partners will provide a schedule and/or list of upcoming events that may coincide with the development of products and materials. Efforts will be made to produce materials in time for promotion at these events.

Appendix A

Native Plant Campaigns in Northern Virginia

Interest Meeting

October 31, 2011
1 – 3 p.m.
NVRC – Chesapeake Conference Room

AGENDA

1:00 – 1:15	Welcome & Introductions
	Have everyone go around the room and introduce themselves
1:15 – 1:45	Background
	Laura and Jim to provide brief orientation to the purpose of today's meeting (to understand what is going on currently and to discuss opportunities to promote native plants through retail establishments). Laura describe CZM grant and CZM's efforts on the Eastern Shore of VA.
1:45 – 2:00	Discussion of On-Going Efforts
	Participants describe on-going campaigns and marketing efforts for native plants – what works well, what could be improved, what's on the cusp of being great!
2:00 – 2:45	Discussion of Opportunities for a Collaborative Campaign
	Laura and Jim facilitate a discussion about designing a campaign specifically for native plants – what should we consider? Are there additional partners who should be at the table? What are the various roles and responsibilities of the partners?
2:45 – 3:00	Wrap-Up and Next Steps
	Briefly describe opportunities and determine next meeting date.

Appendix B

In Attendance

Laura Grape, NVRC	lgrape@novaregion.org
Jim McGlone, Virginia DOF	jim.mcglone@dof.virginia.gov
Cliff Fairweather, ASNV	cliff@audubonva.org
Lily Whitesell, NVSWCD	lily.whitesell@fairfaxcounty.gov
Paige Thacker, VCE – Prince William	pthacker@pwcgov.org
Adria Borda, VCE – Fairfax	abordas@vt.edu
Dan Schwartz, NVSWCD	dan.schwartz@fairfaxcounty.gov
Amy Gould, FCRP (L&F)	amy.gould@cox.net
Diane Hoffman, NVSWCD	diane.hoffman@fairfaxcounty.gov
Beth Polak, Virginia CZM	beth.polak@deq.virginia.gov
Virginia Witmer, Virginia CZM	virginia.witmer@deq.virginia.gov
Debbie Dillion, VCE - Loudoun	ddillion@vt.edu

List of Invitees

Non-Government Organizations

Alan Ford	Virginia Native Plant Society (Potowmack)
Denna Brown	Virginia Native Plant Society (Prince William)
Cliff Fairweather	Audubon Society of Northern Virginia
Tom Underwood	American Horticultural Society
Amy Gould	Fairfax County Restoration Partnership

Industry

Jay Meadows	Meadows Farms
Carla Thomas	Nature by Design
David Yost	Merrifield Garden Center

Government

Adria Bordas	Virginia Cooperative Extension (Fairfax County)
Jennifer Abel	Virginia Cooperative Extension (Arlington)
Paige Thacker	Virginia Cooperative Extension (Prince William)
Debbie Dillion	Virginia Cooperative Extension (Loudoun)
Diane Hoffman	Northern Virginia Soil and Water Conservation District
Lily Whitesell	Northern Virginia Soil and Water Conservation District
Jay Yankey	Prince William Soil and Water Conservation District
Suzie Brown	Loudoun Soil and Water Conservation District
Laura Grape	Northern Virginia Regional Commission
Jim McGlone	Virginia Department of Forestry

Regional Native Plant Campaign
MEETING NOTES

December 12, 2011
11 am – 1 pm
NVRC – Chesapeake Conference Room
3060 Williams Drive, Suite 510
Fairfax, VA 22031

Summary

Meeting agenda is provided as Appendix A
Participants and a list of invitees are provided in Appendix B
Partner Norms and Meeting Requests are provided in Appendix C

The purpose of the meeting was to officially kick off the Regional Native Plant Marketing Campaign in Northern Virginia. Specific outcomes of the meeting include a set of guiding principles to support their work together, a working definition of how native plants are defined for this campaign, and ideas for refining the survey instrument that will be used to collect the knowledge, attitudes, and opinions of Northern Virginia residents, which will ultimately guide the development of messages and materials.

Discussion

Defining Native

For the campaign, the group agreed to use the following definition of native plants, prepared by the Department of Conservation and Recreation Natural Heritage Program:

Native species evolved within specific regions and dispersed throughout their range without know human involvement. They form the primary component of the living landscape and provide food and shelter for native animal species. Native plants co-evolved with native animals over many thousands to millions of years and have formed complex and interdependent relationships. Our native fauna depend on native flora to provide food and cover. Many animals require specific plants for their survival.

Review and Discussion of ES Natives Survey

The

Long-Term Strategies

- Explore opportunities for partnering with homebuilders to develop a demonstration gardens at Model home sites [Stanley Martin, Winchester, possibly Toll Brothers]
- Engage wholesale perennial growers in integrating branded material into their efforts.
    - Participate in the Mid-Atlantic Nursery Tradeshow (annual show takes place in January, in Baltimore, MD)

Next Steps & Homework

The next meeting will take place in late-November/early-December. Laura will send out potential meeting dates. This first official meeting of the Partners will focus on developing a survey tool to conduct market research and items of interest for inclusion as part of the training module.

Partners will provide a schedule and/or list of upcoming events that may coincide with the development of products and materials. Efforts will be made to produce materials in time for promotion at these events.

Appendix A

Regional Native Plant Campaign in Northern Virginia

Partner Meeting

Monday, December 12, 2011
11 a.m. – 1 p.m.
NVRC – Chesapeake Conference Room

The purpose of today's meeting is to officially kick off the Regional Native Plant Marketing Campaign in Northern Virginia. At the end of the meeting, the partners will have:

- A set of guiding principles to support their work together,
- A working definition of how native plants are defined for this campaign, and
- A refined survey instrument to collect the knowledge, attitudes, and opinions of Northern Virginia residents, which will ultimately guide the development of messages and materials.

AGENDA

11:00 – 11:05	Welcome & Introductions *Name, organization, and favorite holiday cookie*
11:05 – 11:15	Partner Norms and/or Meeting Requests *The partners will develop a list of principles that will guide their interactions during meeting and throughout the project to make our short time together as meaningful and efficient as possible.*
11:15 – 12:00	Defining Native for the Campaign *We need a common definition of what as a group we will promote as being native. Jim McGlone will briefly share his explanation to help get the conversation started.*
12:00 – 12:45	Review and Discussion of ES Native Survey *Participants will review the survey distributed to Eastern Shore residents for its applications in Northern Virginia.*
12:45 – 1:00	Next Steps & Schedule *Subcommittees – survey, training module development?*

On Deck:
Conduct survey in early-January, results in late-January
Possible partner meeting in early-February?

Appendix B

In Attendance

Laura Grape, NVRC	lgrape@novaregion.org
Jim McGlone, Virginia DOF	jim.mcglone@dof.virginia.gov
Cliff Fairweather, ASNV	cliff@audubonva.org
Lily Whitesell, NVSWCD	lily.whitesell@fairfaxcounty.gov
Paige Thacker, VCE – Prince William*	pthacker@pwcgov.org
Adria Borda, VCE – Fairfax	abordas@vt.edu
Dan Schwartz, NVSWCD	dan.schwartz@fairfaxcounty.gov
Beth Polak, Virginia CZM	beth.polak@deq.virginia.gov
Virginia Witmer, Virginia CZM	virginia.witmer@deq.virginia.gov
Debbie Dillion, VCE - Loudoun	ddillion@vt.edu
Terry Liercke – ASNV	tliercke@verizon.net
Alan Ford – VNPS	amford@acm.org
Kristine Mosuela	kamosuela@gmail.com

**by phone*

List of Invitees

Non-Government Organizations

Alan Ford	Virginia Native Plant Society (Potowmack)
Nancy Vehrs	Virginia Native Plant Society (Prince William Wildflower Society)
Cliff Fairweather	Audubon Society of Northern Virginia
Tom Underwood	American Horticultural Society
Amy Gould	Fairfax County Restoration Partnership

Industry

Jay Meadows	Meadows Farms
Carla Thomas	Nature by Design
David Yost	Merrifield Garden Center

Government

Adria Bordas	Virginia Cooperative Extension (Fairfax County)
Jennifer Abel	Virginia Cooperative Extension (Arlington)
Paige Thacker	Virginia Cooperative Extension (Prince William)
Debbie Dillion	Virginia Cooperative Extension (Loudoun)
Dan Schwartz	Northern Virginia Soil and Water Conservation District
Lily Whitesell	Northern Virginia Soil and Water Conservation District
Jay Yankey	Prince William Soil and Water Conservation District
Suzie Brown	Loudoun Soil and Water Conservation District
Laura Grape	Northern Virginia Regional Commission
Jim McGlone	Virginia Department of Forestry

Project Advisors

Virginia Witmer	Virginia Coastal Zone Management Program
Beth Polak	Virginia Coastal Zone Management Program

Appendix C

Partner Norms and Meeting Requests

The group identified six strategies to assist in making our short time together as efficient as possible. These strategies include:

- **Staying on topic**
  Partners agree to serve as co-facilitators, should the discussion steer off-topic.
- **Having a conference line or Go-To-Meeting available for every meeting**
  To support everyone's ability to participate in planning meetings, NVRC will have a conference line and/or Go-To-Meeting for Partners to join the discussion and view presentations.
- **Avoiding Fridays for Partner meetings and/or conference calls**
  Several Partners do not work on Fridays. Therefore, planning meetings and conference calls will not take place on this day.
- **Emailing summaries with next steps and action items**
  Unless there is a significant scheduling conflict, NVRC will provide a summary of Partner meetings within a week of the gathering. The summary will include next steps and action items accompanied by responsible parties.
- **Reading materials before the meetings**
  Partners agreed to read materials prior to the meeting. NVRC will make every attempt to provide these materials one week before the meeting.
- **Beginning and ending Partner meetings/conference calls at the designated time**
  In recognition and respect of everyone's time and busy schedule, meetings will begin and end on time.

Regional Native Plant Campaign
PARTNER MEETING NOTES

April 30, 2011
11:30 am – 1:30 pm
NVRC – Chesapeake Conference Room
3060 Williams Drive, Suite 510
Fairfax, VA 22031

Summary

Meeting agenda is provided as Appendix A
Participants and a list of invitees are provided in Appendix B
Presentations and Meeting materials are available at: www.novaregion.org/nativeplants

The purpose of the meeting was to provide an overview of how the campaign fits into a social marketing framework, to discuss the opportunity offered by Virginia CZM to produce a native plant guidebook for Northern Virginia, and for partners to provide input on the content and logistics of the training for nursery staff, master gardeners, and master naturalists. The arrangement of agenda topics was rearrange to accommodate early departures.

Discussion

Project Status and Updates

Laura provided a quick update on the status of the campaign, including the following partner changes:

- Debbie Dillion is no longer with the Loudoun VCE; Corey Childs will serve as her replacement on the Partnership.
- Cliff Fairweather recently left Audubon Society of Northern Virginia to assume the Naturalist position at Long Branch Nature Center in Arlington.

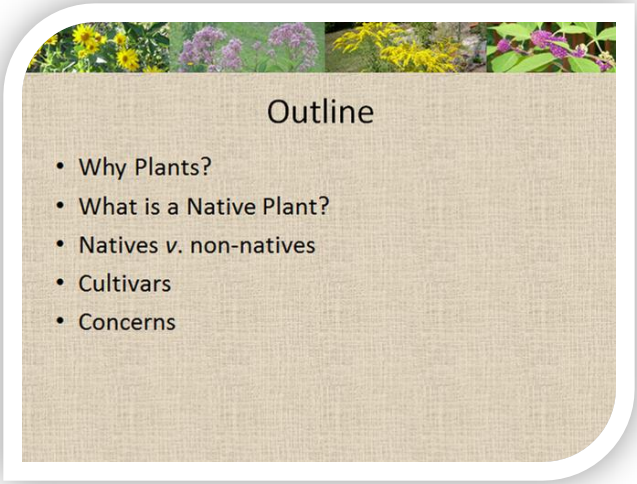
Additionally, Laura mentioned that she has received a quote from Amplitude Research the marketing firm who will conduct the online survey for the Partners. She is in the process of procuring their services and needs to meet with the survey subcommittee members to review the draft survey instrument before submitting it to the firm for finalization.

The Partners mentioned that they are in the throes of the Native Plant Sale and Garden Tour season. Nancy shared that roughly 120 people participated in the April 29, 2012 spring wildflower garden tour sponsored by the Prince William Wildflower Society. She was particularly proud that there were several new faces and an increase in the backgrounds and diversity of those participating.

Community Leader Training

Jim McGlone has been developing the training module for the community leader training, which will be provided to nursery staff, master gardeners, and master naturalists.

To gather feedback and input from the Partners, he went through the draft presentation that provides an overview of native plants and the value that they provide. Partners made the following recommendations:



Outline of the Community Leaders Training Presentation that will introduce participants to the value of native plants.

Prepared by Jim McGlone.

- Place the discussion of "Why Plants?" in general first, and then go into more details about native plants.
- Should provide references/citations to statements regarding the benefits of native plants.
- Incorporate information from the Conservation Corridors in Northern Virginia Planning project to discuss habitat loss and opportunities.
- Tie the information provided in the presentation to reference the research collected through the survey on what customers will most likely be seeking and provide additional outlets to information for other questions, such as available websites that may be easily downloaded to a handheld device
    - VA Tech's online database – in development
    - USFWS Native Plants Center, Chesapeake Region – http://www.nativeplantcenter.net/
- Keep the presentation to roughly 20-30 minutes.
- Consider pushing the training until the late-fall.

Community Leaders Training Agenda STRAWMAN (2.5 hour training)

Intro (Jim McGlone, DOF or Laura Grape, NVRC)

Ecology of Native Plants
- Possible Speaker: Jim McGlone (DOF)

Common Native Plants (what they look like, how they grow)
- Possible Speakers: Alan Ford, Nancy Vehrs, or Charles Smith (VNPS)

Common questions and responses, with possible roll-play exercise
- Possibly Showcase: Deena's Pizza Box of Bees
- Possible Speaker: Adria Bordas or Paige Thacker (VCE)

Available Resources and Wrap Up (Jim McGlone and/or Laura Grape)

The Campaign Social Marketing Framework

To assist in providing an overview as to how all of the parts of the campaign fit together, Laura presented a short PowerPoint presentation to relate the various aspects of social marketing to the Regional Native Plant Campaign's framework. She stressed that the information collected through the online survey of Northern Virginia residents will support all of the other aspects of the campaign.

Alan asked how long it will take to get the results of the survey. Laura mentioned it is a quick turnaround with a final consolidated report provided within a month of executing the contract with Amplitude Research.

Social marketing framework for the Regional Native Plant Campaign.

Prepared by Laura Grape

Native Plant Guidebook Revision

The Virginia Coastal Zone Management Program offered to revise their popular Guidebook for the Native Plants of Accomack and Northampton to the Northern Virginia region.

Developing the List of Plants to Feature in the Guide

Virginia Witmer and Beth Polak recommended that the Partners review the list of native plants that appear on the Eastern Shore and in Northern Virginia as a starting point. In addition, Laura recommended narrowing the plants based on the following:

- What is currently available on the market (and at native plant sales)?
- What are consumers asking for?
- What species do we want to promote in order to encourage their availability at retail establishments?

Laura stressed that the Northern Virginia Guidebook should feature plants that Northern Virginians are most likely going to be interested in. Partners also expressed that availability is key, to avoid confusion at nurseries. Reducing the number of plants featured in the Guide will reduce the size of document, allowing space for other information and saving on printing costs.

Beth will establish a subcommittee to help develop the list of natives that will be featured in the guidebook. Nancy suggested that Virginia Bluebells be incorporated into the Northern Virginia guide.

Other Guidebook Elements

It was suggested that flowering time be a featured component of the Index in the back of the guidebook, even if the timing is generally mentioned (i.e. early-spring, late-summer, etc…). Additionally, the Partners agree that the Guidebook and Training materials and presentation should very closely mirror one another to ensure consistency between the resources.

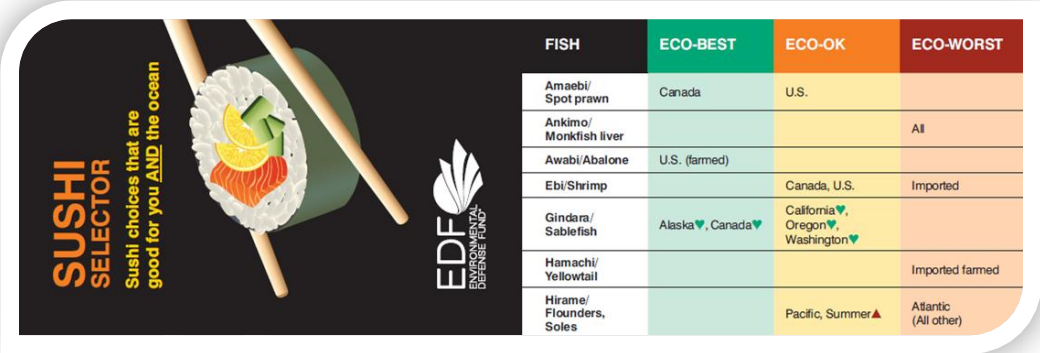
Printing the Guidebook and Other Materials

CZM spent $6,500 to print 5,000 copies of the 44-page Eastern Shore guide. The Northern Virginia project has some funding available for printing materials ($4,000). Since the revision to the guidebook was recently offered to the Partners, NVRC did not applying for significant funding for printing in the 2011 grant proposal.

It was recommended that enough copies be printed to at least distribute to training participants, but that the campaign should drive the general public to the online version and offer other alternative materials that could be printed at less cost and in bulk.

Partners suggested other materials that complement the guidebook could be distributed to the wider public. For example:

- Dan shared a tri-fold pocket guide developed by the Environmental Defense Fund that could easily be modified to feature Native Plant varieties: http://www.edf.org/sites/default/files/8683_sushi_pocket.pdf



FISH	ECO-BEST	ECO-OK	ECO-WORST
Amaebi/ Spot prawn	Canada	U.S.	
Ankimo/ Monkfish liver			All
Awabi/Abalone	U.S. (farmed)		
Ebi/Shrimp		Canada, U.S.	Imported
Gindara/ Sablefish	Alaska♥, Canada♥	California♥, Oregon♥, Washington♥	
Hamachi/ Yellowtail			Imported farmed
Hirame/ Flounders, Soles		Pacific, Summer▲	Atlantic (All other)

- Laura suggested that posters featuring the most common native plant varieties sought by gardeners and commercially available could be easily developed and featured at retail establishments. Alan mentioned they could also be used in schools.

Another suggestion is to charge a nominal fee for the guidebook to cover printing costs. This may or may not be allowable under the NOAA grant, so NVRC needs to follow up with project funders.

Next Steps & Homework

Laura will be on maternity leave beginning in June, at the latest (maybe late-May). The Partners should plan on reconvening in August. In the meantime:

- In May, Laura will work with the survey subcommittee and Amplitude Research to refine the survey instrument and conduct the online survey.
- Beth will convene a subcommittee to support the revisions to the Native Plant Guidebook – those interested should contact Beth at beth.polak@deq.virginia.gov.
- Jim will continue to work with the training subcommittee to determine dates for the training, finalize the agenda, identify speakers, etc…

Appendix A

Regional Native Plant Campaign in Northern Virginia
Partner Meeting

Monday, April 30, 2012
11:30 a.m. – 1:30 p.m.
NVRC – Chesapeake Conference Room

AGENDA

11:30 – 11:35	Welcome & Introductions
11:35 – 11:45	Project Status and Updates *The partners will take just a few minutes to review the efforts to date and share any recent developments and/or changes that have taken place over the last few months.*
11:45 – 12:00	The Campaign's Social Marketing Framework *Laura will share a quick overview of social marketing philosophy and how this initiative fits within a social marketing methodology.*
12:00 – 12:45	Native Plant Guidebook Revision *Over the summer 2012, the Virginia Coastal Zone Management Program will revise the Guidebook developed for the Eastern Shore to Northern Virginia, with support from campaign partners. Several aspects of the existing guide need to be updated with more Northern Virginia-specific information. This includes the plants list, featured species, images, and the aspects of our region that make it unique.*
12:45 – 1:15	Community Leaders Training *Preliminary work on developing training modules for community leaders, including master gardeners, master naturalists, and nursery staff is underway. Partners will provide their insights as to workshop content and logistics.*
1:15 – 1:30	Next Steps & Schedule

Appendix B

In Attendance

Laura Grape, NVRC	lgrape@novaregion.org
Jim McGlone, Virginia DOF	jim.mcglone@dof.virginia.gov
Lily Whitesell, NVSWCD	lily.whitesell@fairfaxcounty.gov
Dan Schwartz, NVSWCD	dan.schwartz@fairfaxcounty.gov
Beth Polak, Virginia CZM	beth.polak@deq.virginia.gov
Virginia Witmer, Virginia CZM	virginia.witmer@deq.virginia.gov
Alan Ford – VNPS, Potomack	amford@acm.org
Nancy Vehrs – VNPS, PWWS	nvehrs1@yahoo.com

List of Invitees

Non-Government Organizations

Alan Ford	Virginia Native Plant Society (Potowmack)
Nancy Vehrs	Virginia Native Plant Society (Prince William Wildflower Society)
Cliff Fairweather	Audubon Society of Northern Virginia
Tom Underwood	American Horticultural Society
Amy Gould	Fairfax County Restoration Partnership

Industry

Jay Meadows	Meadows Farms
Carla Thomas	Nature by Design
David Yost	Merrifield Garden Center

Government

Adria Bordas	Virginia Cooperative Extension (Fairfax County)
Jennifer Abel	Virginia Cooperative Extension (Arlington)
Paige Thacker	Virginia Cooperative Extension (Prince William)
Corey Childs	Virginia Cooperative Extension (Loudoun)
Dan Schwartz	Northern Virginia Soil and Water Conservation District
Lily Whitesell	Northern Virginia Soil and Water Conservation District
Jay Yankey	Prince William Soil and Water Conservation District
Suzie Brown	Loudoun Soil and Water Conservation District
Laura Grape	Northern Virginia Regional Commission
Jim McGlone	Virginia Department of Forestry

Project Sponsors

Virginia Witmer	Virginia Coastal Zone Management Program
Beth Polak	Virginia Coastal Zone Management Program

Regional Native Plant Campaign
PARTNER MEETING NOTES

March 7, 2013
1:00 pm – 3:00 pm
NVRC – Chesapeake Conference Room
3060 Williams Drive, Suite 510
Fairfax, VA 22031

Summary

Meeting agenda is provided as Appendix A
Participants and a list of invitees are provided in Appendix B
Final Survey Instrument is provided in Appendix C

The purpose of the meeting was to update partners on the implementation of the survey, discuss the status and logistics of adapting the ES Natives Guidebook to Northern Virginia and for partners to provide input on delivering the draft training module to Community Leaders.

Discussion

Project Status and Updates

Corey Miles introduced herself to the group and explained that she would be picking up where Laura Grape left off. Since Corey is new to the group she took a few minutes to review the project goals that were originally envisioned when the project was developed.

Market Research

Corey explained that everyone's comments from the draft survey instrument were incorporated into the final version. Craig Belanger from Amplitude Research (the survey contractor) helped to articulate the survey questions in a non-biased manner. The final version of the survey was launched on-line by Amplitude on February 26, 2013. The goal is to obtain 500 responses from homeowners over 21 that reside in Northern Virginia. Amplitude expects it will take 2-3 weeks to obtain 500 responses and an additional 2-3 weeks to analyze results and compile a final report. A final report is anticipated from Amplitude during the week of April 8, 2013. The results of this research will play a very important role in the overall development of the campaign. The information we obtain from the survey will do a number of things:

1) Identify the demographics of our target audience who are likely to be more receptive to learning more about native plants;
2) Find out generally what people's perceptions about native plants are;

3) Identify which plant attributes people are most interested in which in turn will help us narrow down the plant list for the guidebook
4) Identify places where our target demographic is most likely to shop for plants and obtain information about plants;
5) Identify the time of year when people are most frequently buying plants;
6) Identify barriers or reasons people may be hesitant or uninterested to buy and plant natives on their property; and
7) Identify where to focus time and energy, i.e. target the placement and type of promotional materials that people are most likely to respond to.

Virginia Witmer emphasized that in a social marketing campaign it is very important to listen to your audience and customize consistent approaches to convey your message. She also shared the methods they used on the eastern shore to evaluate the effectiveness of their social marketing campaign. A second survey was mailed out mid-campaign to evaluate behavior change and find out how many people had heard their radio ads or seen their promotional materials. They also interviewed garden centers to see if they had noticed an increase in sales of native plants. It was found that the native plant campaign on the Eastern Shore was having the desired effect.

Native Plant Guidebook Revision

The Virginia Coastal Zone Management Program offered to revise their popular Guidebook for the Native Plants of Accomack and Northampton to the Northern Virginia region. The partners would like an electronic copy of the text so that they can offer comments to tailor the book to Northern Virginia. Beth suggested that the group start thinking of plant photos to use for the Northern Virginia guidebook.

Corey stated that the guidebook will be a great tool and will have many other uses. For example, NVRC regularly conducts reviews of EA's and EIS's. The guidebook could be referenced in our review letter as a source of information for those projects that involve landscaping or restoration. NVRC also regularly convenes rain garden workshops. The guide could be a valuable resource for workshop participants who are planning to construct a rain garden on their property. Since we only have a small budget for printing, users could be directed to a website where they can download a copy of the guide.

Developing the List of Plants to Feature in the Guide

Alan Ford stated that he has reviewed the list of native plants for Northern Virginia and has shared the list with a few other regional plant experts for review and comment. At this point he is still waiting for comments from his colleagues. It is difficult to identify every native plant for the list because many are rare and would never be available in the commercial trade.

Virginia explained that a similar plant list was developed for the Northern Neck area. They started with a comprehensive list and refined it based on trade availability. The plant list developed for Northern Neck includes plants native to the Coastal Plain physiographic region but not the Piedmont physiographic region. Northern Virginia's plant list will include plants from both the Coastal Plain region and the Piedmont region so although there will be significant overlap, the two lists will not be exactly

the same. Virginia also added that the list should reference the new Flora of Virginia of book. Alan indicated that the Northern Neck list will be a great reference for the Northern Virginia List.

Community Leader Training

Jim McGlone has developed a draft training module for the community leader training. He went through the draft presentation that provides an overview of native plants and the value that they provide. He noted that bees, ticks, snakes, rats and pollen are frequently barriers to people becoming interested in planting native plants.

Partners discussed the definition of "native plant". It was agreed that the DCR language should be used in order to maintain consistent messaging. However, for the purposes of this training, a slightly restructured and simplified definition may be more palatable to the public.

The partners discussed who the community leaders are that should be targeted to receive training. It was agreed that nursery staff, master gardeners, and master naturalists are excellent resources however; anyone that is interested in becoming a community leader can participate in a training session. In addition, there may be other groups that would be receptive to native plant outreach such as the bird community and the bee community. The staff at nurseries and garden centers should also be engaged so that they may provide informed guidance to the general public on native plants. The Conservation Landscaping Council may also be interested in forming a partnership.

The components of the training were discussed. The partners agreed that after the community leaders have been trained, they should be equipped with the revised guidebook, some promotional materials, and perhaps a scripted powerpoint to carry out trainings on their own.

Next Steps & Homework

- Corey will distribute the survey results when they become available.
- Jim to identify community leaders that may be interested in receiving training in his area. Lily and Nancy to identify community leaders in Prince William and Loudon Counties.
- Virginia will send out the plant list from Northern Neck and a link to the overview report from the Eastern Shore campaign.
- The group should plan to meet at the end of spring to review the survey results, finalize the plant list, edit the guidebook and finalize the community leader training.
- Partners should review the text in the ES Guidebook and suggest edits to make it Northern Virginia specific. These edits should be sent to Virginia and Beth.

Appendix A

Regional Native Plant Campaign in Northern Virginia

Partner Meeting

Thursday, March 7, 2013

1:00 p.m. – 3:00 p.m.

NVRC – Main Conference Room

AGENDA

1:00 – 1:10	Welcome & Introductions
1:10 – 1:15	Revisit Project Goals and Updates on Project Status
	The partners will take just a few minutes to revisit project goals and objectives.
1:15 – 1:45	Review of Survey Data Collection. How the data will be used
	Corey will share the final survey instrument and review the timeline for survey implementation and final report from Amplitude. Partners will provide their insights as to how the data should be used to shape the other components of the campaign.
1:45 – 2:15	Native Plant Guidebook Revision
	Several aspects of the existing ES guide need to be updated with more Northern Virginia-specific information. This includes the plants list, featured species, images, and the aspects of our region that make it unique. CZM Partners will share the ES template. What characteristics/parameters should be used to refine plant list and featured species for the guide?
2:15 – 2:45	Community Leaders Training and Promotional Products
	Preliminary work on developing training modules for community leaders, including master gardeners, master naturalists, and nursery staff has been done. Partners will provide their insights as to finalizing workshop content and logistics of providing it to community leaders. Promotional products will also need to be developed and distributed to local garden centers. What kinds of products worked well on the Eastern Shore? Will those products be effective here as well?
2:45 – 3:00	Next Steps & Schedule

This program is funded, in part, by Virginia Coastal Zone Management Program at the Department of Environmental Quality through Grant *#NA11NOS4190122, Task 54* of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, under t he Coastal Zone Management Ac t of 1972, as amended.

Appendix B

In Attendance

Corey Miles, NVRC	cmiles@novaregion.org
Aimee Vosper, NVRC	avosper@novaregion.org
Jim McGlone, Virginia DOF	jim.mcglone@dof.virginia.gov
Lily Whitesell, NVSWCD	lily.whitesell@fairfaxcounty.gov
Beth Polak, Virginia CZM	beth.polak@deq.virginia.gov
Virginia Witmer, Virginia CZM	virginia.witmer@deq.virginia.gov
Alan Ford – VNPS, Potomack	amford@acm.org
Nancy Vehrs – VNPS, PWWS	nvehrs1@yahoo.com

List of Invitees

Non-Government Organizations

Alan Ford	Virginia Native Plant Society (Potowmack)
Nancy Vehrs	Virginia Native Plant Society (Prince William Wildflower Society)
Tom Underwood	American Horticultural Society
Amy Gould	Fairfax County Restoration Partnership

Industry

Jay Meadows	Meadows Farms
Carla Thomas	Nature by Design
David Yost	Merrifield Garden Center

Government

Adria Bordas	Virginia Cooperative Extension (Fairfax County)
Jennifer Abel	Virginia Cooperative Extension (Arlington)
Paige Thacker	Virginia Cooperative Extension (Prince William)
Corey Childs	Virginia Cooperative Extension (Loudoun)
Dan Schwartz	Northern Virginia Soil and Water Conservation District
Lily Whitesell	Northern Virginia Soil and Water Conservation District
Jay Yankey	Prince William Soil and Water Conservation District
Suzie Brown	Loudoun Soil and Water Conservation District
Jim McGlone	Virginia Department of Forestry

Project Sponsors

Virginia Witmer	Virginia Coastal Zone Management Program
Beth Polak	Virginia Coastal Zone Management Program

Regional Native Plant Campaign in Northern Virginia
"Plant NOVA Natives"
Partner Meeting

Thursday, September 26, 2013
12:30-3:00pm
Northern Virginia Regional Commission
Occoquan Room

AGENDA

1. Updates on Project Status
    - *Discuss the Plant List- make decisions on plants to be highlighted*

2. Finalize Slogan and Graphics

3. Community Leader Training
    - *Discuss the training materials and logistics of providing it to community leaders.*

4. Campaign Promotional Materials
    - *Guidebook*
    - *Banners/posters*
    - *Plant Tags*
    - *Website*
    - *Demonstration Gardens*

5. Next Steps & Schedule
    - *Schedule for Plant Guide*
    - *Schedule of community leader trainings*
    - *Design of campaign promotional materials*

This program is funded, in part, by Virginia Coastal Zone Management Program at the Department of Environmental Quality through Grant #NA11NOS4190122, Task 54 of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, under the Coastal Zone Management Ac t of 1972, as amended.

Virginia Coastal Zone MANAGEMENT PROGRAM

Regional Native Plant Campaign
PARTNER MEETING NOTES

May 9, 2013
12:00 pm – 1:30 pm
NVRC – Occoquan Conference Room
3060 Williams Drive, Suite 510
Fairfax, VA 22031

Summary

Meeting agenda is provided as Appendix A
Participants and a list of invitees are provided in Appendix B

The purpose of the meeting was to update partners on the results of the survey, discuss the status and logistics of delivering the Community Leader Training, discuss the schedule and for partners to provide input on developing the campaign promotional materials.

Discussion

Project Status and Updates

Corey Miles introduced Ann Garvey, the Audubon at Home Representative from Loudon County. Corey provided the group with a recap of the Native Plants Community-Based Social Marketing Workshop and Partnership Meeting hosted by CZM and VA DGIF in Richmond on May 3, 2013. One of the take-away messages from the workshop was that it is important for groups that advocate use of native plants around the state to have overarching consistent messaging, but also maintain the unique local and regional perspective. The event also provided an opportunity to network with others from around the state and hear about native plant efforts undertaken by a variety of groups.

Market Research

The survey was launched on-line on February 26, 2013. We obtained 500 responses from homeowners over 21 that reside in Northern Virginia. The final report was received from Amplitude on March 13, 2013. The results of this research were used to answer the following questions:

1) Who is our primary target audience that will likely be more receptive to learning more about native plants?

- Women living in single family homes with incomes of $150,000 who care for plants on their property
- Age was not a strong factor in determining interest in native plants

2) Who is our secondary target audience?
    - Landscaping company
    - Garden center staff
3) What are people's perceptions about native plants?
    - Beneficial for the environment
    - Easier to care for
4) Which plant attributes are people most interested in? which in turn will help us narrow down the plant list for the guidebook?
    - Easy to maintain
    - Adapted to local soil and climate conditions
    - Resistant to damage from insects/disease
    - Requires minimal/no fertilizer
    - Attracting birds and butterflies ranked very low
    - Color ranked very low
5) Where is our target audience most likely to shop for plants and obtain information about plants?
    - Local plant nursery/garden center
    - Hardware/home center store
    - Internet/web
    - Friends/relatives
6) What are the education needs of our target audiences?
    - Even though many respondents accurately defined "native plants" most respondents viewed themselves as "not very" knowledgeable or "not at all knowledgeable"
    - Messages should be tailored to the "adapted to local climate and soil conditions" , "beautiful for your property" and "low maintenance" attributes
    - Demonstration gardens
7) When are people most frequently buying plants?
    - April and May
8) What are barriers or reasons people may be hesitant or uninterested to buy and plant natives on their property?
    - Plants aren't identified as native at place of purchase
    - No store display or special area of a garden center devoted to native plants
    - Lack of commercial availability
    - Lack of demonstration gardens showcasing native landscaping
    - No knowledge of native plant benefits and options
9) What should elements of our message be?
    - Most people felt that "Low Maintenance" and "Adapted to local soil and climate conditions" was extremely important when deciding which plants to purchase Messaging should point to these benefits.

- When asked why they care for and/or plant on their property to 83% of respondents indicated to “beautify my property”; 48% indicated “maintain or increase property value”.
- 36% selected “to feed the birds/butterflies”

10) Identify where to focus time and energy, i.e. target the placement and type of promotional materials that people are most likely to respond to.
    - Garden Centers
    - Demonstration gardens
    - Educate the public on benefits
    - Educate landscapers

Native Plant Guidebook Revision

Virginia Witmer brought a draft copy of the Northern Neck guidebook. Northern Virginia’s plant list will include plants from both the Coastal Plain region and the Piedmont region. We can use the plant list Northern Neck used for the Coastal region but we still need to refine the list for the Piedmont region. A subcommittee will be established to finalize the Piedmont list. Virginia also provided Corey with the electronic version of the template she used to create the Eastern Shore guide. It was suggested that the guide have a soil pH range. The possibility of including photos of invasives was also discussed. Corey will use the template provided by Virginia and modify it with Northern Virginia specific information.

The group discussed including a map of demonstration gardens in the guide and on the website. The gardens featured in the guide should include a mix of manicured and naturalistic gardens so that the public can see both types.

Promotional Materials

The group discussed ideas for the logo, slogan, and tag line. “Plant NoVa Natives” will be used as a slogan to maintain consistency with the other regional campaigns. The group agreed to send Corey one or two ideas each for a logo and tag line combination. Other materials such as bumper stickers, banners, plant tags, pencils, garden flags and NoVa Gnomes were also discussed.

Corey also mentioned that she will be developing a “Plant NoVa Natives” website. The site will contain an electronic copy of the guide, information about native plants and garden design ideas, regular updates on native plant sales, a list of partnering retail establishments, maps of demonstration gardens and links to other native plant resources.

Community Leader Training

The partners discussed the logistics of implementing the training. Jim stated that the training could provide Master Naturalists and Master Gardeners with Advanced Training Hours. The Fairfax County Government Center and County Libraries were identified as potential training locations. Master Gardeners, Master Naturalists, Loudon Wildlife, Audubon at Home and Native Plant Society members will be notified of the trainings via e-mail lists. Garden Centers, nurseries and landscapers will have to be contacted individually to ask if their staff would be interested in receiving any training.

Draft Schedule

Corey discussed the draft schedule she prepared. The end date of the grant is March 31, 2014 so originally it had been proposed to begin running the campaign this September. However, upon reviewing the level of effort needed to plan and develop all of the materials necessary to begin in September, the group discussed the possibility of conducting the Community Leader Training over the winter and running the campaign in Spring of 2014. Virginia and Beth agreed that the grant products could be delivered in March or April before the campaign is in full swing. It was agreed to revise the schedule based upon Community Leader Training in Winter 2014 and running the campaign in Spring 2014.

Appendix A

Regional Native Plant Campaign in Northern Virginia

"Plant NOVA Natives"

Partner Meeting

Thursday, May 9, 2013

12:00 p.m. – 1:30 p.m.

NVRC – Occoquan Conference Room

AGENDA

12:00 – 12:10 Updates on Project Status

- *Any recent developments and/or changes that have taken place over the last two months.*
- *Outcomes of the Richmond Native Plants Community Based Social Marketing workshop.*

12:10 – 12:45 Findings of Market Research

How the data will be used

- *Key findings of the survey and final report from Amplitude.*

    - *Target audience, current barriers, education objectives, attitudes/perceptions, evaluation of progress*
- *How should the data be used to shape the other components of the campaign?*
    - *Slogan, messages, campaign symbol, point of sale items, guide, garden center listings*

12:45 – 1:10 Community Leader Training

- *Identify who the training will be provided to*
- *Discuss the training materials and logistics of providing it to community leaders.*

1:10 – 1:20 Campaign Promotional Materials

- *Guidebook*
- *Banners/posters*
- *Plant Tags*
- *Website*
- *Demonstration Gardens*

1:20 – 1:30 Next Steps & Schedule

- *Schedule for Plant Guide (early summer?)*
- *Schedule of community leader trainings (late summer?)*
- *Design of campaign promotional materials (mid-summer?)*

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Appendix B

In Attendance

Corey Miles, NVRC	cmiles@novaregion.org
Aimee Vosper, NVRC	avosper@novaregion.org
Jim McGlone, Virginia DOF	jim.mcglone@dof.virginia.gov
Lily Whitesell, NVSWCD	lily.whitesell@fairfaxcounty.gov
Beth Polak, Virginia CZM	beth.polak@deq.virginia.gov
Virginia Witmer, Virginia CZM	virginia.witmer@deq.virginia.gov
Ann Garvey, LWC/AAH	ahgarvey@aol.com
Nancy Vehrs – VNPS, PWWS	nvehrs1@yahoo.com

List of Invitees

Non-Government Organizations

Alan Ford	Virginia Native Plant Society (Potowmack)
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Tom Underwood	American Horticultural Society
Amy Gould	Fairfax County Restoration Partnership
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Industry

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Adria Bordas	Virginia Cooperative Extension (Fairfax County)
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Corey Childs	Virginia Cooperative Extension (Loudoun)
Dan Schwartz	Northern Virginia Soil and Water Conservation District
Lily Whitesell	Northern Virginia Soil and Water Conservation District
Jay Yankey	Prince William Soil and Water Conservation District
Suzie Brown	Loudoun Soil and Water Conservation District
Jim McGlone	Virginia Department of Forestry

Project Sponsors

Virginia Witmer	Virginia Coastal Zone Management Program
Beth Polak	Virginia Coastal Zone Management Program

Regional Native Plant Campaign
PARTNER MEETING NOTES

December 18, 2013
11:00 pm – 1:00 pm
NVRC – Main Conference Room
3060 Williams Drive, Suite 510
Fairfax, VA 22031

Summary

Meeting agenda is provided as Appendix A
Northern Virginia Native Plant Guide Production Schedule provided as Appendix B
Participants and a list of invitees are provided in Appendix C

The purpose of the meeting was to unveil the slogan and logo graphics, make decisions on the schedule and locations for Community Leader Training, discuss the development of content for the NoVA native plant guide and discuss the production schedule of the guide.

Discussion

Project Status and Updates

The plant list for the guide was distributed for comment. Comments were received and the list has been finalized.

Logo and Slogan Graphic

The graphic was custom designed by Virginia Witmer, CZM for the Plant NoVA Natives campaign. The graphic is a coral honeysuckle and hummingbird moth with the slogan "Plant NoVA Natives Naturally Beautiful". The graphic was projected on the large screen for partners to view. The partners had the following comments:

- The VNPS plant of the year is also *Lonicera sempervirens* creating nice synergy
- Adding more translucency to the wings may help to differentiate the moth from a hummingbird
- An alternative might be the bumblebee hummingbird moth
- Virginia will play with the coloration of the wings to see if more translucency will differentiate it

Community Leader Training

The partners discussed the logistics of implementing the training.

- Four train the trainer sessions will be conducted on the following dates: March 19, 20, 26 and 27 depending upon facility availability. Alternative dates in March will be selected if facility is unavailable
- Trainings will be 1.5 hours

- The trainings will provide Master Naturalists and Master Gardeners with Advanced Training Hours.
- George Mason University, Morvin Park, Manassas Courthouse and Fairlington Community Center were identified as training locations.
- Master Gardeners, Master Naturalists, Loudon Wildlife, Audubon at Home and Native Plant Society members will be notified of the trainings via e-mail lists.
- The target audience to receive trainings are those that have a strong background in gardening/landscaping or naturalist activities but would like to learn more about what the benefits of native plants are, which plants to plant in our region and how to maintain them.

Native Plants of Northern Virginia Guidebook

The partners discussed developing content for the guide and how to coordinate the production schedule with the trainings. The section by section production schedule is outlined in **Appendix C.** The goal is to have a pdf draft guide ready by March 3. Corey will share content via a google docs site to allow for collaborative management of content drafted by the partners. Corey will also set up a gallery for photos.

Appendix A

Regional Native Plant Campaign in Northern Virginia

"Plant NOVA Natives"

Partner Meeting

December 18, 2013
11:00-1:00pm
Northern Virginia Regional Commission
3060 Williams Dr., Suite 510
Fairfax, VA 22031
Main Conference Room

AGENDA

1. Welcome, Introduction, and Updates on Project Status
    - *Recap of last two meetings*

2. Unveil Slogan and Logo Graphics
    - *Virginia Witmer, CZM*

3. Community Leader Training
    - *Make decisions on schedule and locations for training community leaders.*

4. Guide
    - *Final plant list*
    - *Photos of highlighted species*
    - *List of non-natives of concern in NOVA?*
    - *Text - Introduction*
    - *Text – Benefits of NOVA Natives*
    - *Text - Cultivars*
    - *Which demonstration gardens to include?*
    - *New section on Community Groupings and Sample Garden Plans?*

5. Campaign Kickoff
    - *Timing*
    - *Activities*
    - *Coordination with other native plant activities*
    - *Partner retail establishments*

6. Next Steps & Schedule
    - *Production schedule for plant Guide*
    - *Schedule of community leader trainings*
    - *Design of campaign promotional materials*

This program is funded, in part, by Virginia Coastal Zone Management Program at the Department of Environmental Quality through Grant *#NA11NOS4190122, Task 54* of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, under the Coastal Zone Management Ac t of 1972, as amended.

Appendix B

In Attendance

Corey Miles, NVRC	cmiles@novaregion.org
Alan Ford, VNPS	amford@acm.org
Jim McGlone, Virginia DOF	jim.mcglone@dof.virginia.gov
Judy Fraser, Mason Sustainability Institute	jfraser6@gmu.edu
Beth Polak, Virginia CZM	beth.polak@deq.virginia.gov
Virginia Witmer, Virginia CZM	virginia.witmer@deq.virginia.gov
Ann Garvey, LWC/AAH	ahgarvey@aol.com
Nancy Vehrs – VNPS, PWWS	nvehrs1@yahoo.com
Donna Williamson, Wild Ones Blue Ridge Chapter	donnawilliamson2002@earthlink.com
Mary Hutton, Wild Ones Blue Ridge Chapter	hutton.mf@gmail.com
Carla Thomas, Nature By Design	carla@nature.by.design.com

List of Invitees

Non-Government Organizations

Alan Ford	Virginia Native Plant Society (Potowmack)
Nancy Vehrs	Virginia Native Plant Society (Prince William Wildflower Society)
Amy Gould	Fairfax County Restoration Partnership
Ann Garvey	Audubon at Home, Loudon County

Industry

Jay Meadows	Meadows Farms
Carla Thomas	Nature by Design
David Yost	Merrifield Garden Center

Government

Adria Bordas	Virginia Cooperative Extension (Fairfax County)
Jennifer Abel	Virginia Cooperative Extension (Arlington)
Paige Thacker	Virginia Cooperative Extension (Prince William)
Corey Childs	Virginia Cooperative Extension (Loudoun)
Dan Schwartz	Northern Virginia Soil and Water Conservation District
Lily Whitesell	Northern Virginia Soil and Water Conservation District
Jay Yankey	Prince William Soil and Water Conservation District
Suzie Brown	Loudoun Soil and Water Conservation District
Jim McGlone	Virginia Department of Forestry

Project Sponsors

Virginia Witmer	Virginia Coastal Zone Management Program
Beth Polak	Virginia Coastal Zone Management Program

Appendix C

Northern Virginia Native Plant Guide Production
Targeted Release On-line: Monday, March 3, 2014
Targeted Hardcopy Availability: March 12, 2014

Section of Guide	Description	Action	Responsible Party Content	Layout	Deadline
Cover	300 dpi minimum photos	Full cover image of Coral Honeysuckle with three inset photos of natives - one each from three regions	VW	VW	1/15/14
Introduction	2-page spread including brief description of what is a Northern Virginia native and what makes them special - why plant native, how plant list for guide was developed (reference Flora of Virginia and how group selected plants for main list and to be highlighted), list of campaign partners, acknowledgments	Draft text Choose center photo - VW will present options according to images currently available at high resolution	Corey Team	Corey	
Table of Contents		Choose photo	Team	Corey	After all sections
How to Use This Guide		Replicate key to ES guide - substitute NV natives - however may need to include additional section on sidebars highlighting Genus	Corey	Corey	
Benefits of Northern Neck Native Plants	2-page spread - Highlight of benefits of Northern Neck natives as identified through research - this is the sell, why should I use plants native to NoVA - what is special about this region?	Draft text Distribute text to planning team members for review Choose images for spread	Jim, Alan	Corey	1/15/14
Map of Northern Virginia Plant Regions	Map outlining the 3 distinct planting regions in the Northern Virginia Plant NoVA Natives Campaign Area - describe ecology of regions and what makes them unique	Draft map - need volunteer to write planting region descriptions; VA CZM will create map but need help outlining regions	Jim	Virginia	1/15/14

Regional Native Plant Campaign in Northern Virginia
"Plant NOVA Natives"
Partner Meeting

Tuesday, August 20, 2013
2:30 p.m. – 4:30 p.m.
NVRC – Occoquan Conference Room

AGENDA

Updates on Project:

- Guidebook development
  - *Schedule*
- Campaign Strategy Discussion
  - *Decide on Slogan and Logo*
- Community Leader Training
  - *Identify who the training will be provided to*
  - *Discuss the training materials and logistics of providing it to community leaders.*
- Campaign Promotional Materials & Point of Sale Items
  - *Press & fact sheets*
  - *Banners/posters*
  - *Plant Tags*
  - *Website*
  - *Demonstration Gardens*
- Next Steps & Schedule

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Virginia Coastal Zone MANAGEMENT PROGRAM

Hosted by the Northern Virginia Regional Commission

Regional Native Plant Campaign in Northern Virginia
"Plant NOVA Natives"
Partner Meeting

Feb 11, 2014
1:00-3:00 pm
Northern Virginia Regional Commission
3060 Williams Dr., Suite 510
Fairfax, VA 22031
Main Conference Room

AGENDA

1. Guide
   - *photos*
2. SmugMug
3. Community Leader (Native Plant Ambassador) Training
   - Web registration up on NVRC
   - *How to build and sustain commitment*
   .
4. Campaign Kickoff
   - *Timing*
   - *Activities*
   - *Coordination with other native plant activities*
5. Next Steps & Schedule
   - *Production schedule for plant Guide*
   - *Schedule of community leader trainings*
   - *Design of campaign promotional materials*

This program is funded, in part, by Virginia Coastal Zone Management Program at the Department of Environmental Quality through Grant #NA11NOS4190122, Task 54 of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, under the Coastal Zone Management Ac t of 1972, as amended.

Regional Native Plant Campaign
PARTNER MEETING NOTES

April 23, 2014
11:00-1:00
NVRC – Main Conference Room
3060 Williams Drive, Suite 510
Fairfax, VA 22031

Summary

Meeting agenda is provided as Attachment A
Participants and a list of invitees are provided in Attachment B
Plant NoVA Natives Campaign Strategy Attachment C
Community Leader Coordinator Position Attachment D

Introductions

Several new partners were in attendance and all participants introduced themselves. New groups represented included Master Gardeners of Northern Virginia, Green Spring Master Gardeners, and Arlington Master Naturalists.

Strategy

Corey provided the group with a brief summary of the Plant NoVA Natives Community-Based Social Marketing Strategy. Community Based Social Marketing is based upon research in the social sciences that demonstrates that behavior change is most effectively achieved through initiatives delivered at the community level which focus on removing barriers to an activity while simultaneously enhancing the activities benefits. The behavior that the Plant NoVA Natives Campaign is focused on is planting native plants rather than non-native and sometimes invasive plants in the Northern Virginia landscape. The Plant NoVA Natives campaign is focused on changing this behavior for several reasons; 1) native plants are better for wildlife, 2) non-native plants have the potential to become aggressive invaders when they escape into our remaining natural areas, 3) federal, state, and local governments as well as countless other non-governmental organizations spend a lot of money on invasive plant removal, 4) turf grass and hardscape contribute to an increase in urban stormwater runoff (which is the primary pollutant of local waterways and Chesapeake Bay), 5)turfgrass and ornamentals typically require fertilizer and pesticides to maintain and natives don't, and 6)many devastating plant diseases and pests have been brought here on imported nursery stock (i.e. chestnut blight, hemlock wooly adelgid, emerald ash borer etc).

The Strategy was developed in 2013 using the results of the market research. The Strategy identifies the target audiences, key messages, barriers to purchasing natives, strategies to overcome those barriers, education objectives and behavior change measures. Corey explained that it is a working document and

can be adapted as new information becomes available. For example, the group suggested that plant growers be targeted as a secondary audience. The Virginia Nursery and Landscape Association (VNLA) is a resource that can be used to identify all of the nurseries and garden centers in the region. The Plant NoVA Natives Campaign Strategy is provided as Attachment C.

Community Leader Coordinator Position

Corey announced that NVRC is now accepting applications for the Community Leader Coordinator Position. The position will be a temporary employee of NVRC until September 30. Direct funding for the position has been provided by the Coastal Zone Management Program. Indirect funding will be provided by NVRC. The target date to fill the position is May 15th. The advertisement for the position is attached as Attachment D.

Next Steps

Many of the workshop attendees expressed some confusion as to what we were asking them to do. Alan explained that the workshops were an introduction to the Plant NoVA Natives Program and an opportunity to further educate the participants about native plants. At a minimum, participants were asked to go to a local garden center and ask for native plants. The group agreed that a follow up communication was needed as soon as possible to give the participants additional guidance.

Promotional Materials

Guide

The guide is still several weeks away from being published. The revised production schedule summarizes the edits and content still needed. The guide however is only one component of the overall strategy. In the interim, the group expressed urgency in getting some scaled down Plant NoVA Natives publications and literature out in the public as soon as possible.

Other Informational Handouts

A palm card that has the logo, a few key talking points, and the link to the website was discussed. A few trifold brochures that contain photos and plant lists was also discussed. Corey explained that the website has not been created yet but the domain name has been purchased. Corey will work on getting the website up and running as soon as possible. It is also important to consider that the time and cost of creating and printing interim publications will take away from time and money that can be devoted to printing the guide.

Subcommittees/Working Groups

Three working groups were created to help the group accomplish things more efficiently.

Guide

Jim McGlone	Joanne Hutton
Alan Ford	Virginia Witmer

Mary VanDyke	Corey Miles

Communications

Judy Fraser	Tracy Serle
Michael Reinemer	Ann Garvey
Carol Rosen	Sheila Ferguson
Virginia Witmer	Jim McGlone
Corey Miles	Nancy Vehrs
Carolyne Haynes	Sarah Pak

Demo Gardens

Kirsten Buhls	Lily Whitesell (watershed friendly garden tour)
Terry Liercke	

Schedule

The next meeting was scheduled for May 21, 2014 from 10:00 – 1:00.

The Guide workgroup will collaborate electronically and have a second draft ready by the next steering committee meeting.

Corey will send out a doodle poll to the Communications group to select a time and date for a meeting. In the interim electronic collaboration will be sufficient.

Attachment A

Regional Native Plant Campaign in Northern Virginia
"Plant NOVA Natives"
Partner Meeting

Wednesday April 23, 2014
11:00-1:00pm
Northern Virginia Regional Commission
Main Conference Room

AGENDA

- Welcome and Introductions

- **Community Leader Coordinator Position**
  - Community Leader Coordinator position
    - *We have funding for half-time person thru Sept. 30*
    - *Position description*
    - *Scope of Work*
- **Guide**
  - Draft Review
  - Schedule for completion
  - Process for distribution
- CL Toolkit
    - *Website*
    - *Powerpoint for presentations to HOA's etc*
    - *Plant tags*
    - *Guides*
    - *Banners*
    - *Table top display for farmer's markets*
- Subcommittee's/Working Groups
  - Communications
  - Guide
  - Website Content
  - Others

- **Next Steps & Schedule**

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Appendix B

In Attendance

Corey Miles, NVRC	cmiles@novaregion.org
Terry Liercke, ASNV	tliercke@verizon
Jim McGlone, Virginia DOF	jim.mcglone@dof.virginia.gov
Lily Whitesell, NVSWCD	lily.whitesell@fairfaxcounty.gov
Beth Polak, Virginia CZM	beth.polak@deq.virginia.gov
Virginia Witmer, Virginia CZM	virginia.witmer@deq.virginia.gov
Ann Garvey, LWC/AAH	ahgarvey@aol.com
Nancy Vehrs – VNPS, PWWS	nvehrs1@yahoo.com
Alan Ford, VNPS	amford@acm.org
Michael Reinemer, VNPS	Michael_reinemer@tws.org
Sheila Ferguson, LWC	
Judy Fraser, MSI	jrobbfraser@gmail.com
Sarah Pak, MGNV	sarahpak@spidesign.net
Carol Rosen, MGNV	carolcolerosen@gmail.com
Joanne Hutton, MGNV, ARMN, AAH	joannerhutton@gmail.com
Caroline Haynes, ARMN, AAH, ASNV Natural Resources Joint Advisory Group	cmhaynes@comcast.net
Mary Van Dyke, MGNV, ARMN	maryvandyke4@gmail.com
Tracey Serle, GSMG	tserle@verizon.net
Kirsten Buhls, VCE	kbuhls@vt.edu

List of Invitees

Non-Government Organizations

Alan Ford	Virginia Native Plant Society (Potowmack)
Nancy Vehrs	Virginia Native Plant Society (Prince William Wildflower Society)
Ann Garvey	Audubon at Home, Loudon Wildlife Conservancy
Terry Liercke,	Audubon Society of Northern VA
Michael Reinemer	Virginia Native Plant Society
Judy Fraser	Mason Sustainability Institute
Sarah Pak	Master Gardeners of Northern VA
Carol Rosen	Master Gardeners of Northern VA
Joanne Hutton,	Master Gardeners of Northern VA, Arlington Master Naturalists, AAH

Caroline Haynes,	Master Gardeners of Northern VA, Arlington Master Naturalists, AAH Natural Resources Joint Advisory Group
Mary Van Dyke	Master Gardeners of Northern VA, Arlington Master Naturalists
Tracey Serle	Green Spring Master Gardeners
Sheila Ferguson	Loudoun Wildlife Conservancy
Amanda Duprey	Arlington Master Naturalists
Mareae Harris	4 Mile Run Community Garden

Industry

Carla Thomas	Nature by Design
Celia Vuocolo	Hill House Natives

Government

Adria Bordas	Virginia Cooperative Extension (Fairfax County)
Kirsten Buhls	Virginia Cooperative Extension (Arlington)
Paige Thacker	Virginia Cooperative Extension (Prince William)
Lily Whitesell	Northern Virginia Soil and Water Conservation District
Jim McGlone	Virginia Department of Forestry
Ron Circe	Loudoun County Dept. Parks

Project Sponsors

Corey Miles	Northern Virginia Regional Commission
Virginia Witmer	Virginia Coastal Zone Management Program
Beth Polak	Virginia Coastal Zone Management Program

Attachment C Plant NoVa Natives Campaign Strategy

Plant NoVa Natives Campaign Strategy

Contents

Audience

Who is our primary target audience that will likely be more receptive to learning more about native plants?

- Homeowners living in single family homes or townhouses with incomes of $150,000 who care for plants on their property
- Age was not a strong factor in determining interest in native plants

Who is our secondary target audience?

- Landscaping industry
- Garden center staff

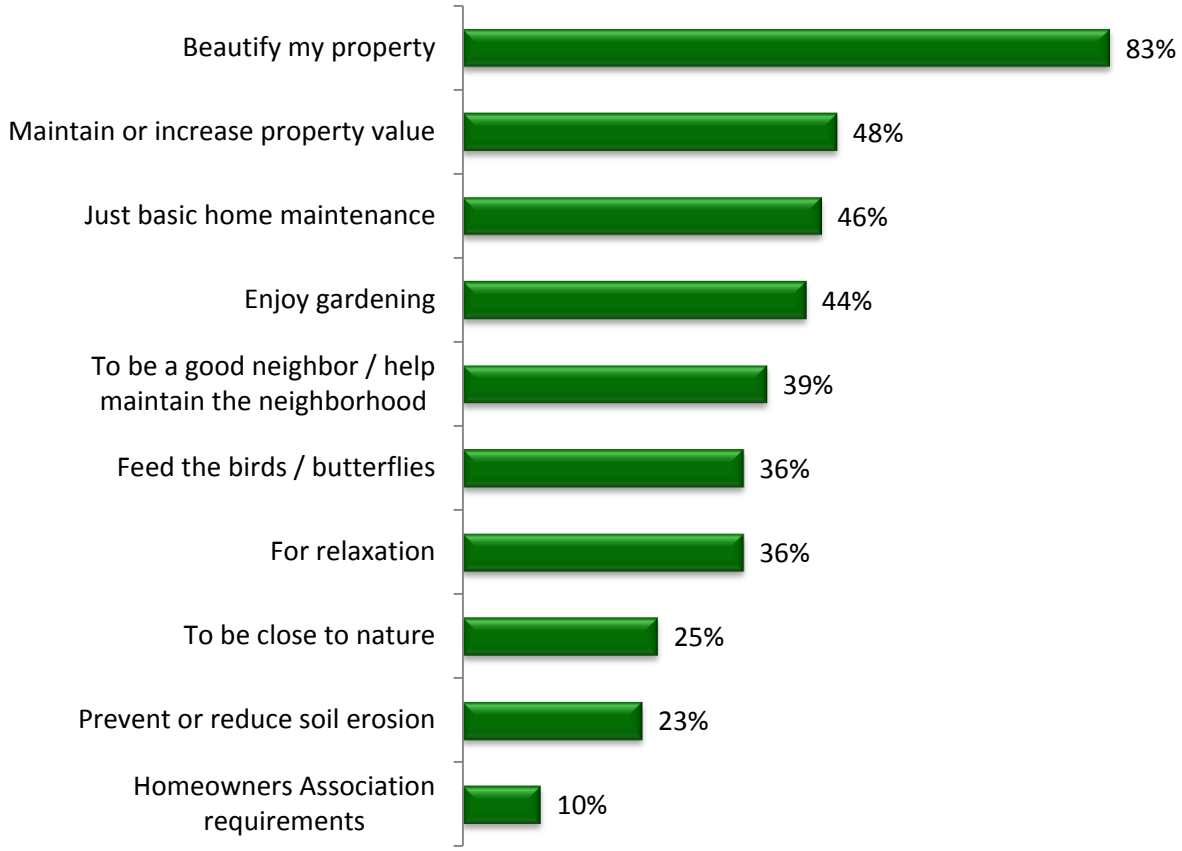
Messaging

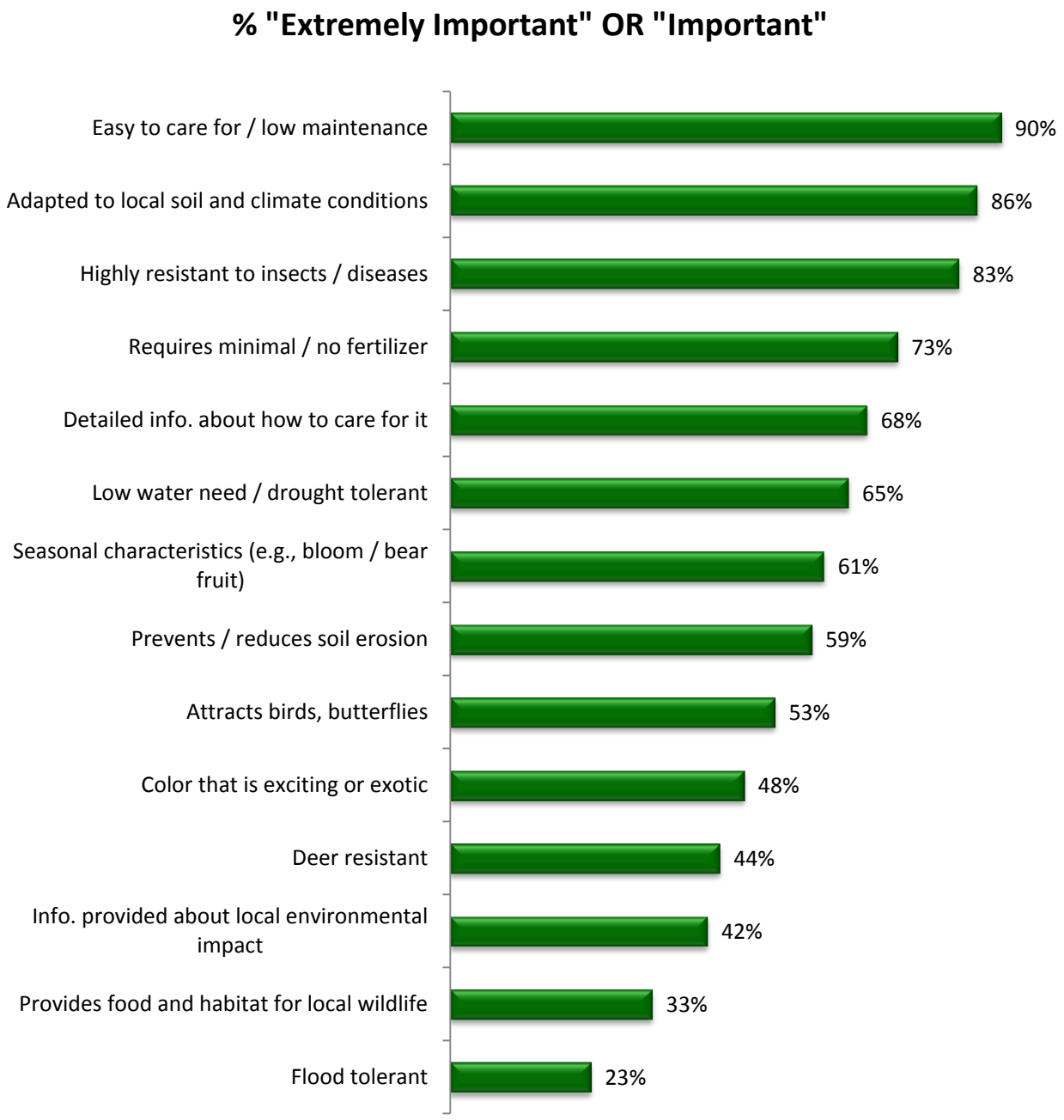
Selecting the messaging for the campaign required some examination of the motivations respondents had for planting or caring for plants. In addition, the attributes respondents selected as being "extremely important" or "important" when selecting plants to buy for their property were sorted and identified.

Strategy → Key messages should emphasize the following:

- NoVa natives are a beautiful alternative to non-native ornamentels
- NoVa natives are more beneficial for birds and butterflies than non-natives
- NoVA natives are easy to care for when established and
    - require less maintenance because they are adapted local soil and climate conditions
    - require minimal/no fertilizer
    - resistant to damage from insects and diseases
    - low water need/drought tolerant,

Which of the following are reasons you or others in your household plant and/or care for plants on your property?





Campaign Slogan

The top five attributes that respondents ranked as "extremely important" or "important" when selecting plants to purchase were all related to ease of care and low maintenance. This is an important component of the campaign since these are all attributes of Native Plants. If messaging is tailored to reflect these attributes, there is a potential to increase interest.

Easy to care for/low maintenance: 90%

Adapted to local soil and climate conditions: 86%

Highly resistant to insects/diseases: 83%

Requires minimal/no fertilizer: 73%

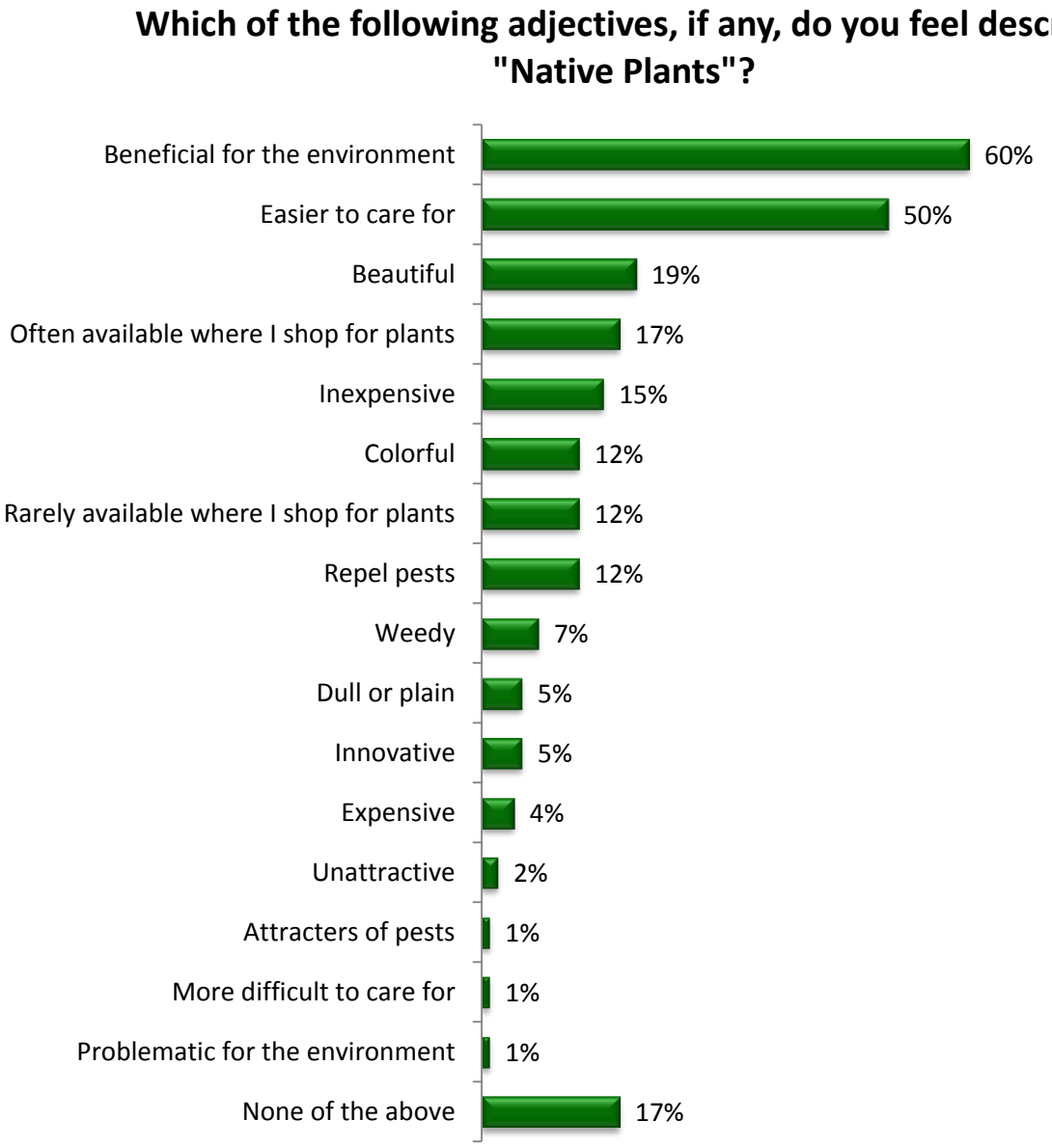
Low water need/drought tolerant: 65%

Strategy → Use slogan that emphasizes ease of care "Garden Easy, Plant NoVA Natives"

Native Plant Image/Perception

When asked to describe native plants from a list of adjectives, positive adjectives were selected more often than negative adjectives indicating that native plants don't have an "image problem". Since most respondents already perceive native plants as beneficial for the environment (60%) and easier to care for (50%), consumers are more likely to recognize messages that discuss these benefits as credible.

Strategy → Further educate consumers so they will more readily think about all of the other advantages of using native plants in their landscape.



Barriers

What are barriers or reasons people may be hesitant or uninterested to buy and plant natives on their property?

Strategy → Use market research to identify the barriers to purchasing native plants and identify strategies to overcome those barriers

- Plants aren't identified as native at place of purchase
- No store display or special area of a garden center devoted to native plants
- Lack of commercial availability

- Lack of demonstration gardens showcasing native landscaping
- No knowledge of native plant benefits and options

In addition, 18% of survey respondents indicated that they rely entirely on a landscaping company to select and care for their plants. An issue that was identified during the Collaborative Summit to Protect Water Quality through Actions on Urban-Suburban Properties held in Williamsburg in February 2013, was the lack of landscape industry professionals that were knowledgeable about native plants. It is possible that this campaign could encourage landscapers to become more interested in using native plants, especially if their clients also become more interested in seeing native plants on their property.

Availability

When asked about the issue of retail availability, results showed that only 17% of respondents felt they were often available and 12% felt they were rarely available. The mixed results may indicate an overall problem that they are difficult to find for sale in a retail setting. A very high proportion (81%) felt that they would be likely to shop at a local plant nursery / garden center.

Strategy → Use pot tags and other identifiers to differentiate NoVa Natives from non-natives at the point of sale

Strategy → Target garden centers/plant nurseries for the placement of promotional materials

Strategy → Use banners at participating garden centers to advertise that they carry NoVa Natives

Education Objectives

Even though many respondents accurately defined "native plants" most respondents viewed themselves as "not very" knowledgeable (40%) or "not at all knowledgeable" (27%). Only 8% of respondents selected that they were "knowledgeable" or "very knowledgeable". This suggests there is room to educate Northern Virginia residents about the many benefits of "Native Plants"

Strategy → Use a variety of educational tools to spread the key messages

- Community leader training for garden center staff, Master Gardeners and Master Naturalists
- Demonstration gardens
- NoVa Natives Guidebook
- Website
- Partner with other organizations with similar goals i.e. Audubon at Home

- Distribute promotional materials that tout key messages
- Promote garden center displays that feature NoVa natives
- Point of sale items to identify natives

Strategy → Use post campaign survey to measure any increase in percentages of respondents that classify themselves as "knowledgeable" or a decrease in the percent that identify with "not at all knowledgeable"

Behavior Change Measures

When given the educational statement "Native plants require less water and fertilizer than other plants because they are better adapted to local soil and climate conditions and are more resistant to insects and disease. Also, native plants can be beneficial for local birds, butterflies, and other wildlife." and asked if their interest in native plants would change after reading that statement, 68% of respondents felt that the information either "greatly increased" or "somewhat increased" their interest. When subsequently asked if they would be interested in purchasing plants clearly identified as "Northern Virginia Native Plants", approximately one-third (32%) would be "Very interested" in purchasing these types of plants, and another 35% would be "Somewhat interested."

The first question measures possible change in *interest* after exposure to educational information. The second question addresses potential for change in *behavior*. Thus, potential change in *behavior* (purchase of native plants) was based on being educated with the information presented in the first question above. This indicates that a large percentage of consumers will be willing to purchase native plants when they are given information about the benefits of native plants as well as the tools to identify them at the garden center.

Strategy → Use key messages in promotional materials, advertising, and Community Leader Training to educate consumers

Strategy → Use the guidebook and point of sale items such as plant tags to clearly distinguish NoVa Natives from other non-native plants at garden centers

Strategy → Use post campaign survey to evaluate effectiveness of the campaign at changing behavior

Strategy →Work with garden centers to measure sales of native plants

Strategy →Monitor traffic to campaign website

Timing of Campaign "Rollout"

The most common month for purchasing plants was April (65%), followed by May (57%). However, the months of March, June, September, and October had more than one-in-five respondents feeling they would be likely to purchase plants during those months.

Strategy → Create website in November/December 2013

Strategy → Conduct Community Leader Training in January and February 2014

Strategy → Distribute Campaign Promotional Items to garden centers February-March 2014

Strategy → Graduates of Community Leaders training to continue education for other Northern Virginia residents March 2014

Attachment D
Community Leader Program Coordinator Job Description

General Description:

In an effort to build a more sustainable urban and suburban landscape in Northern Virginia and reduce polluted stormwater runoff from private property, the Northern Virginia Regional Commission launched the Plant NoVA Natives Campaign. The Plant NoVA Natives Campaign is a community based social marketing campaign that is seeking to nourish a paradigm shift in peoples' relationship with traditional landscaping practices and promote the use of plants native to Northern Virginia as an alternative to lawn or hardscape in the urban and suburban landscape.

The Northern Virginia Regional Commission is seeking a Community Leader Program Coordinator to organize strategic coordination of a group of volunteers to support Plant NoVA Natives Campaign Goals.

This position is currently funded for a five month, part time (20 hours per week) term with potential for renewal pending additional funding. The Community Leader Program Coordinator will be a temporary employee of the Northern Virginia Regional Commission and provide professional staff support to the Plant NoVA Natives Campaign.

With the assistance of the Plant NoVA Natives Steering Team and Project Manager, the Community Leader Program Coordinator will be responsible for:

- Cultivating relationships with local groups that have shared interests (i.e. master gardeners, master naturalists, tree stewards)
- Identifying and mobilizing a group of highly motivated volunteers and equipping them with the necessary tools to help build the Plant NoVA Natives Community Leader Program;
- Tracking and managing a database of actions-taken and volunteers-recruited in the region;
- Developing regular communications pieces that build and sustain engagement with the Plant NoVA Natives Community Leaders;
- Identifying relevant training needs for Community Leaders;
- Creating and maintaining a database of opportunities for Community Leaders; and

- Reporting to Campaign Manager to ensure outreach activities are compatible with the Plant NoVA Natives campaign goals.

Qualifications:

- Strong public speaking and outreach/organizing skills required;
- Superior writing skills with the ability to promote consistent and clear messages to the public;
- Comfortable with and sensitive to working with a diverse array of community members;
- Proficiency with data tracking and analysis;
- Knowledge of horticulture and plants native to Virginia is required;
- Knowledge of invasive and/or non-native plants frequently used in the landscape is required;
- Knowledge of ecology, water quality, stormwater runoff, and pollution challenges in Northern Virginia is preferred; and
- An understanding of Community Based Social Marketing Techniques is preferred.

The successful candidate must possess a minimum of two years experience in volunteer organizing, environmental outreach, and/or public communications. A Bachelor's degree in environmental studies, horticulture, social science, communications or a related field of study is preferred. Additional certifications such as VA Master Gardener or Master Naturalist are preferred.

Compensation: Commensurate with qualifications and experience.

Accountability: The Community Leader Coordinator reports directly to the Project Manager.

How to apply: Send resume and cover letter describing what makes you uniquely qualified for this position. Cover letters and resumes must be emailed to Corey Miles at cmiles@novaregion.org by April 28, 2014.

NVRC is an equal-opportunity employer.

Regional Native Plant Campaign in Northern Virginia

Steering Committee Meeting

August 5, 2014 10:00-12:00pm
Northern Virginia Regional Commission
3060 Williams Dr., Suite 510, Fairfax, VA 22031

MINUTES

Attendance: Sheila Ferguson, Alan Ford, Joanne Hutton, Jim McGlone, Corey Miles, Beth Polak (phone), Mary Van Dyke, Nancy Vehrs,

PLANT GUIDE: Corey reported all listed plants are in the index. Additional species listed in the Genus groups need to be added. Copy editing is continuing. Only edits to the most current version should be submitted to Corey.
Forbs spaces to be filled by:

Helianthus tuberosa	Jim will complete writeup and picture
Lobelia syplhilitica	Donna Murphy has writeup and picture
Rudbeckia converted to Genus in quarter page box	Joanne completed writeup
Ruellia carolinensis	Jim will complete writeup and picture

Alan will work with Virginia to fix region map.
All edits and content required by August 14th
Incorporate edits by August 28th
Submit to printer for bid by August 28th
Anticipated publishing by week of Sept. 15th
Expected cost per copy is ~ $3, we may be able to print 1000 to 1500 copies of the guide.

Fund raising: The initial print run for the guide is inadequate for our regional needs.
Due to the nature of the grant all copies and material printed under the grant cannot be sold. However we can print additional copies of the guide and sell them at cost with the funds being returned to the program to supply future printing. This means any money collected for printing additional guides constitutes a donation to the program. These are not available as a fund raising tool.
Each partner organization should be asked to what extent they are able and willing to donate additional funds to increase the reach of this program.
NVRC is capable of accepting cash or checks and can print invoice or receipt as preferred.
ACTION ITEM: Please consider how your organization may be able to participate and be prepared to report back at the next meeting. This is an ongoing goal and is not urgent. However, any donated money prior to the original print run will allow us to increase the number of guides initially available.
ACTION ITEM: Corey will develop a draft budget showing the remaining available funds under the grant and the anticipated expenses.

Other outreach materials currently under development by Mary were reviewed. A mockup for a display board and draft copies of several tri-fold pamphlets were discussed.
Mary met with members of the VNPS propagation team on Wednesday, July 30th and received substantial feedback based on their experience with plant propagation in our region.

The committee agreed that any outreach materials will need to be duplicated for each of our four areas (Arlington/Alexandria, Fairfax, Loudoun, Prince William) and be stored by a partner organization to permit for easy access. This will relieve pressure for volunteers to get to NVRC during office hours to get materials.
ACTION ITEM: Determine the appropriate hosting organization for each area. Joanne has agreed to identify a host for ARL/ALEX. Alan has offered VNPS-Green Spring for Fairfax.

OUTREACH: Mary reported that she is ready to contact volunteers from our Spring presentations to engage them in the next steps.
Identification of a few target retailers to test our materials and strategy was discussed. Recommended vendors: Nature by Design (ARL), Merrifield (FFX), Watermark Woods (LOU). For each an initial contact to discuss the program and our goals, and discuss our materials, looking for feedback on size, volume, placement, additional needs. This may be done during August, or after October so as to not infringe on their busy time.
We anticipate retail centers will want a number of guides such that many staff have ready access. Other locations expected to want/need multiple guides include MG for plant clinics and other outreach. We do not know whether these users will want to handle selling the guide.
ACTION ITEM: Identify what sales channels should we consider supporting? Web site? Partner organizations? Who will be responsible for distribution?

WEBSITE: Corey reported the site is ready for public release, although it is presently simple and more work is expected. The Committee agreed to acquire the .org domain name and use that as the primary published URL. The GoDaddy web hosting service has been paid for one year. We will continue to maintain and develop at that location. Any decision to change hosting services can be made later based on input and experience of volunteer web master/developer.

SOCIAL EVENT: Corey proposed we host a publication party for the guide to invite all contributors who worked on it. This could also serve as an announcement event. Suggestions for locale and timing are requested.

Agenda Items for next meeting:
Demonstration Gardens Signage – should we add, update, and/or co-brand signage for demonstration gardens? What do we want to see at a site?
Materials budget for grant – review and understand what we have available and what our needs are.
Prior programs (Eastern Shore, Northern Neck) successes and lessons learned. How do we leverage what the two prior iterations of the outreach program learned? What materials did they find useful or popular? What materials could we use with little or no modification?

NEXT MEETING: THURSDAY, AUGUST 28th, 10 AM – noon at NVRC

This program is funded, in part, by Virginia Coastal Zone Management Program at the Department of Environmental Quality through Grant #NA11NOS4190122, Task 54 of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, under the Coastal Zone Management Ac t of 1972, as amended.

Regional Native Plant Campaign in Northern Virginia

Steering Committee Meeting

July 8, 2014 10:00-12:00 PM
Northern Virginia Regional Commission
3060 Williams Dr., Suite 510, Fairfax, VA 22031

MINUTES

Summary

Meeting Agenda is provided as Appendix A
Lists of Participants and Invitees are provided in Appendix B
Chris Ludwig's Excel of Native Plants of Northern Virginia provided as separate Attachment

Attendance: Sue Dingwell, Alan Ford, Caroline Haynes, Joanne Hutton, Terry Liercke, Jim McGlone, Corey Miles, Beth Polak (phone), Mary Van Dyke, Nancy Vehrs, Virginia Witmer (phone)

Welcome: Alan Ford, Chair of the Steering Team welcomed attendees and phone participants.

Plant Guide Status and Update: Discussion postponed to later in the meeting.

Outreach
Alan reported on the revised Community Leaders Presentation he and Mary Van Dyke gave to the Arlington Natural Resources Joint Advisory Group facilitated by Caroline Haynes. Feedback was constructive:

- Don't spend much time talking about the program itself, don't dwell on or lead with the negatives, but instead lead with the attractiveness and the value. First and foremost: get the audience hooked on the beauty of natives, benefits and value, where to buy and how to grow
- At least two separate presentations are needed:
  - One for newbies who need the straight sales pitch, the "good news message". This group includes: HOAs, churches, homeowners with no prior knowledge
  - One for the landscaper community, those who have a bit of knowledge and want to use natives, perhaps under pressure to learn more and put knowledge into practice

ACTION ITEM: The Universalist Unitarian church in Arlington wants a presentation – several MGNV Master Gardeners from the congregation are working with the landscaper. Also some entities in Falls Church are candidates for a presentation. Contact Kent Taylor to discuss possible receivers of this program. Cristina Lewandowski invites Mary to present at HEN/Community Center this fall.

Photos for guide, presentations, brochures
Photos that show natives being used in yards are needed. These should cover all four seasons, and show a standard-type yard. Need not be exclusively native plants.

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Suggestions:
- Kasha Helget; Nancy Christmas
- Rain gardens in Arlington
- Photos Carol Heiser may already have some good ones
- Sue Dingwell offers to take some photos – e.g. of Arlington Demo Gardens

Social Media
We need to be making use of social media, that's where people are.

ACTION ITEM: Contact David Edmundson, who volunteered to utilize Pinterest. We need our own Plant NOVA Pinterest account. Photos from the NOVA section of the current Smugmug site could be used, here is link: http://nativeva.smugmug.com/ We can make this un-private when we are ready and photos could be ripped from there. Here is the VNPS Pinterest link: http://www.pinterest.com/vnps/

Website
The current website on GoDaddy set up for plantnovanatives.com is basic and limited.
The group liked the photos on slider at top, and requested additional photos.

ACTION ITEM (Mary) seek more sophisticated website platform. In meantime, lists or files that are too large for current site can be housed in and made accessible from the VNPS filebase.

Landscape Professionals
Mary is doing a brief phone interview with those who respond to the offer on website to be linked under Native Landscaper. Ongoing verification of these folks will be an issue we will want to address in future.
Note: National Wildlife Foundation has a cert program, as does George Washington U.; these may be of use to us.

ACTION ITEM (all) generate 4 or 5 questions to ask the native landscapers

Guide to Native Plants for Northern Virginia, Status and Updates
DECISION: Although the majority of plants are native to all three physiographic regions in Northern Virginia, there are many plant on the list that are native to only Piedmont, or only Coastal Plain. See attached spreadsheet from Chris Ludwig. In addition, the physiographic region convention is what is used by VNPS, Flora of Virginia, and DCR Natural Heritage.
It was decided that a physiographic region map would be shown with boundaries that are consistent with the Flora of Virginia and Natural Heritage boundaries. All plants in index will be notated with Region of Origin. Even though most plants will grow in all physiographic regions of Northern VAwhen planted in a garden setting they are not all native to all physiographic regions.

ACTION ITEM: Alan will send revised physiographic regions map. Two formats, with, and without city labels.

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ACTION ITEM: Virginia will send new photo-needed list: some photos were submitted with resolution too low to use

Demo Gardens– Review language for this section, listing many sites not feasible.

ACTION ITEMS: The Final Missing Pieces:

- Joanne - alternatives to invasives
- Joanne – plants for wet places
- Sue – plants for dry shade: image and plant list
- Sue - image for wet place
- Caroline - street side plant list
- Corey - post the plant list for small spaces
- Jim - text that will incorporate high value to wildlife points, to go under the 'Plant Community' box; Alonso will help
- Mary - send link for google docs to everyone
- Everyone: please make sure plants on your lists are already in the index, please use Google Docs for editing, and for all new photos include the Where, When, What, and Who took the photo

Last minute decision: remove Lupine, insert False Solomon's Seal, (*Maianthemum racemosum*).

NEXT MEETING: AUGUST 5th, 10 AM – noon, at the Northern Virginia Regional Commission.

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Appendix A

Regional Native Plant Campaign in Northern Virginia
"Plant NOVA Natives"
Steering Committee Meeting

July 8, 2014 10:00-12:00pm
Northern Virginia Regional Commission
3060 Williams Dr., Suite 510
Fairfax, VA 22031

AGENDA

10:00 – 10:15 Opening Thoughts

10:15 – 10:30 Plant Guide Update

1. Status

2. Schedule for Publication

10:30 – 11:50 Outreach

1. Status Report
   - Monday 7 July, to Arlington's Natural Resources Joint Advisory Group. Alan and Mary presented
   - Cristina Lewandowski (Community Leader/HEN) invited Mary to co-present in Herndon perhaps at HEN, perhaps at Community Center/HOA - this fall
2. Website
   - Lily Whitesell - Intro to Plant NoVA Natives on Fairfax website.
     i. Can we use that text as an example for other partners to use?
   - Content Management
3. Campaign Strategy
   - Social Media Tool Use
4. Campaign Calendar
   - Events
5. Project Deliverables

   Community Leader Toolkit
   - PPT in progress
   - Website in progress
   - Business card in draft. Vista?
   - Yard signs. Recommendations?
   - Tri-fold leaflets - design in progress

11:50 – 12:00 Next Steps & Schedule

1. Action Schedule of Community Leaders

2. Next Meeting for Steering Committee
   - Proposed: August 5, 2014 10:00am

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Hosted by the Northern Virginia Regional Commission

Appendix B

In Attendance

Corey Miles, NVRC	cmiles@novaregion.org
Terry Liercke, ASN	tliercke@verizon.net
Jim McGlone, Virginia DOF	jim.mcglone@dof.virginia.gov
Beth Polak, Virginia CZM (on phone)	beth.polak@deq.virginia.gov
Virginia Witmer, Virginia CZM (on phone)	virginia.witmer@deq.virginia.gov
Nancy Vehrs – VNPS, PWWS	nvehrs1@yahoo.com
Alan Ford, VNPS	amford@acm.org
Joanne Hutton, MGNV, ARMN, AAH	joannerhutton@gmail.com
Caroline Haynes, ARMN, AAH, ASNV Natural Resources Joint Advisory Group	cmhaynes@comcast.net
Mary Van Dyke, NVRC, MGNV, ARMN	maryvandyke4@gmail.com; mvandyke@novaregion.org
Sue Dingwell, VNPS	suzdingwell@@gmail.com

List of Invitees

Non-Government Organizations

Alan Ford	Virginia Native Plant Society (Potowmack)
Nancy Vehrs	Virginia Native Plant Society (Prince William Wildflower Society)
Ann Garvey	Audubon at Home, Loudon Wildlife Conservancy
Terry Liercke,	Audubon Society of Northern VA
Michael Reinemer	Virginia Native Plant Society
Judy Fraser	Mason Sustainability Institute
Carol Rosen	Master Gardeners of Northern VA
Joanne Hutton,	Master Gardeners of Northern VA, Arlington Master Naturalists, AAH
Caroline Haynes,	Arlington Master Naturalists, AAH,Arlington Natural Resources Joint Advisory Group
Mary Van Dyke	NVRC, Master Gardeners of Northern VA, Arlington Master Naturalists
Tracey Serle	Green Spring Master Gardeners
Sheila Ferguson	Loudoun Wildlife Conservancy

Industry

Carla Thomas	Nature by Design

Government

Adria Bordas	Virginia Cooperative Extension (Fairfax County)
Kirsten Buhls	Virginia Cooperative Extension (Arlington)
Paige Thacker	Virginia Cooperative Extension (Prince William)
Lily Whitesell	Northern Virginia Soil and Water Conservation District
Jim McGlone	Virginia Department of Forestry
Ron Circe	Loudoun County Dept. Parks
Elaine Tholen	Fairfax County Public Schools

Project Sponsors

Corey Miles	Northern Virginia Regional Commission
Virginia Witmer	Virginia Coastal Zone Management Program
Beth Polak	Virginia Coastal Zone Management Program

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Regional Native Plant Campaign in Northern Virginia
"Plant NOVA Natives"
Steering Committee Meeting

June 19, 2014 10:00-12:00pm
Northern Virginia Regional Commission
3060 Williams Dr., Suite 510
Fairfax, VA 22031

MINUTES

Attendance: Sheila Ferguson, Alan Ford, Judy Fraser, Ann Garvey, Carolyn Haynes, Joanne Hutton, Terry Liercke, Jim McGlone, Corey Miles, Elaine Tholen, Nancy Vehrs

Plant Guide: The majority of the meeting focused on the guide. Items discussed included:

- How many maps are necessary, what should they convey? Two maps, one roadmap for location, and one geographic map with plant hardiness information, the most relevant for successful landscaping.
- How to include demonstration gardens in the guide? Hard to provide reasonable information and scale, information can become stale. Reference website for details.
    - Members are tasked to find and rate possible demonstration garden sites, checking for accessibility, signage, use of natives, and beauty.

Outreach:

- Members are asked to identify and communicate opportunities for outreach events.
- Need to have substantially all elements in place prior to launch.

Action Items:

- What can we do to update the Virginia Tech Soil Test Kit form to include habitat restoration or native landscaping as a category?
- What aspects of social media are we considering for the campaign? Currently we have focused on the guide and a website.

Next Meeting: July 8, 2014, 10:00am

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Virginia Coastal Zone MANAGEMENT PROGRAM

Hosted by the Northern Virginia Regional Commission

Regional Native Plant Campaign in Northern Virginia

Steering Committee Meeting

May 22, 2014 10:00-1:00pm

Minutes

In Attendance: Virginia Witmer, Beth Polak, Corey Miles, Mary Van Dyke, Jim McGlone, Judy Fraser, Lily Whitesell, Ann Garvey, Sheila Ferguson, Terry Liercke, Elaine Tholen, Alan Ford

Working Group Reports:

1. Outreach Team
    - Many existing partners are already carrying the message, we do not need to duplicate their effort, we can provide materials guidance and branding
    - We can best serve by asking Community Leaders to target~~ing~~ people who are reaching people: HOA, Schools, Churches, Towns, Civic Organizations, Landscape Professionals
    - Identified four resources elements to develop
    1. Display Kit/ Toolkit (Banner, Posterboard)
    2. Demonstration Gardens Identify and Engage
    3. Presentation Materials for public speaking
    4. Quick Answers to Tough Questions / FAQ Guide for volunteers
    - Contact our potential volunteer list and invite their participation in developing these materials
    - Website to serve as a link and hub for efforts. Direct people to the groups in their area engaged in the campaign. Website to also host volunteer leader materials for easy access and
    - Three pilot projects identified to get under way
    1. Arlington/Alexandria Master Gardeners: Farmers Market Info Tables
        Need: flyers, logo, FAQ
    2. Fairfax County Public Schools: Get2Green Public Agency Engagement
        Need: support and input on Urban Wildlife Habitat Initiative
    3. Loudoun Wildlife Conservancy: Garden Center Outreach
        Need: list of target plants, Completed Guide
2. Content Team
    - Guide was reviewed and edits from committee members have been applied.
    - The To Do List follows:
    1. Benefits of native plants based on survey results - Corey
    2. Map of geologic areas - Alan
    3. Species still needing descriptions – Jim develop list
    4. Species still needing pictures – Jim develop list
    5. Write up for Aster - Alan
    6. Decide on an additional tree Jim will suggest
    7. Companion plants / natural plant communities - Jim

8. Schools program and images - Elaine
9. Remove difficult places discussions. Change to plant lists. – Jim to lead
10. Remove discussion of cultivars. Need to wait on guidance from DCR
11. Spell check all lists for correct botanical names
12. Cross check all lists for completeness, inclusion in Index

- Formatting will continue as we develop content.
- All additional content needed by end of June
- No publication date has been set
- Corey will work with Lily and Sheila to develop content for website

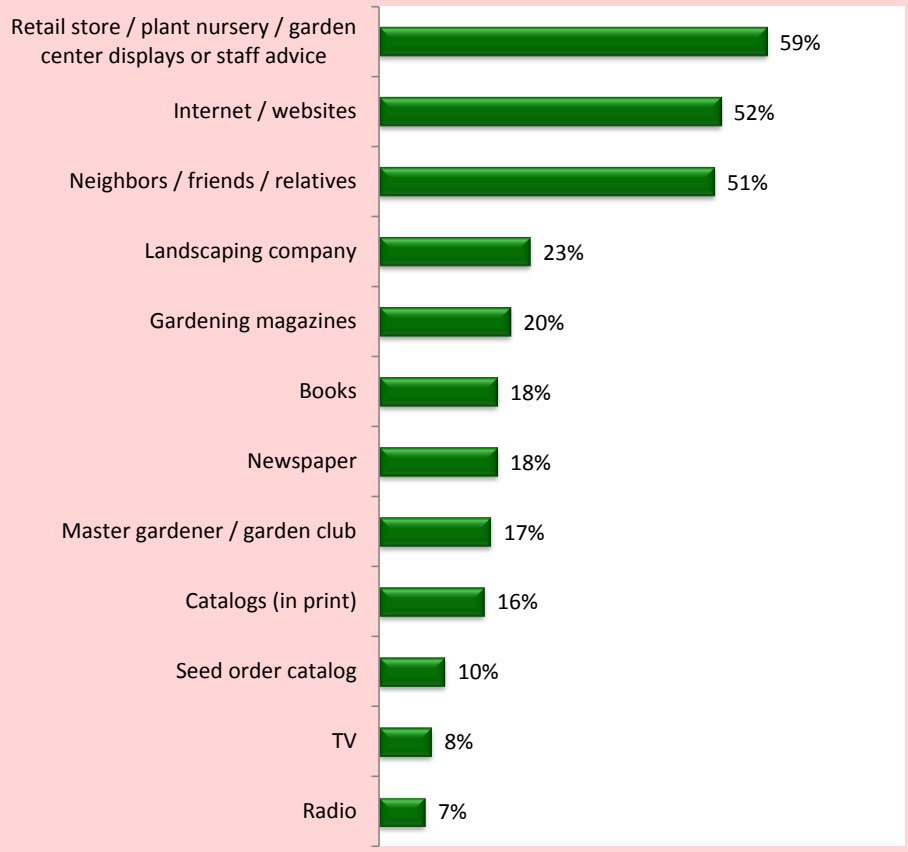
3. Steering Committee
    - Due to many concerns the committee recommends removing the section discussing cultivars/nativars from the guide. This issue is complex and currently evolving opinions make for any clear message hard to achieve. We will rely on VA DCR to develop a position and clearly articulate this at which point we can include this new knowledge in our materials
    - This is a Social Marketing Campaign with the goal of changing the perception and behavior of the property owner, consumer of plant material. We want to stay audience focused and consider how they get their information. What formats may be best to reach them?

4. When it comes to selecting plants, the chart on the next page shows the types of sources that could be used to help decide what plants to purchase and/or how to care for plants. More than half (59%) would expect to refer to the displays and/or talk to staff at a store or nursery or garden center.

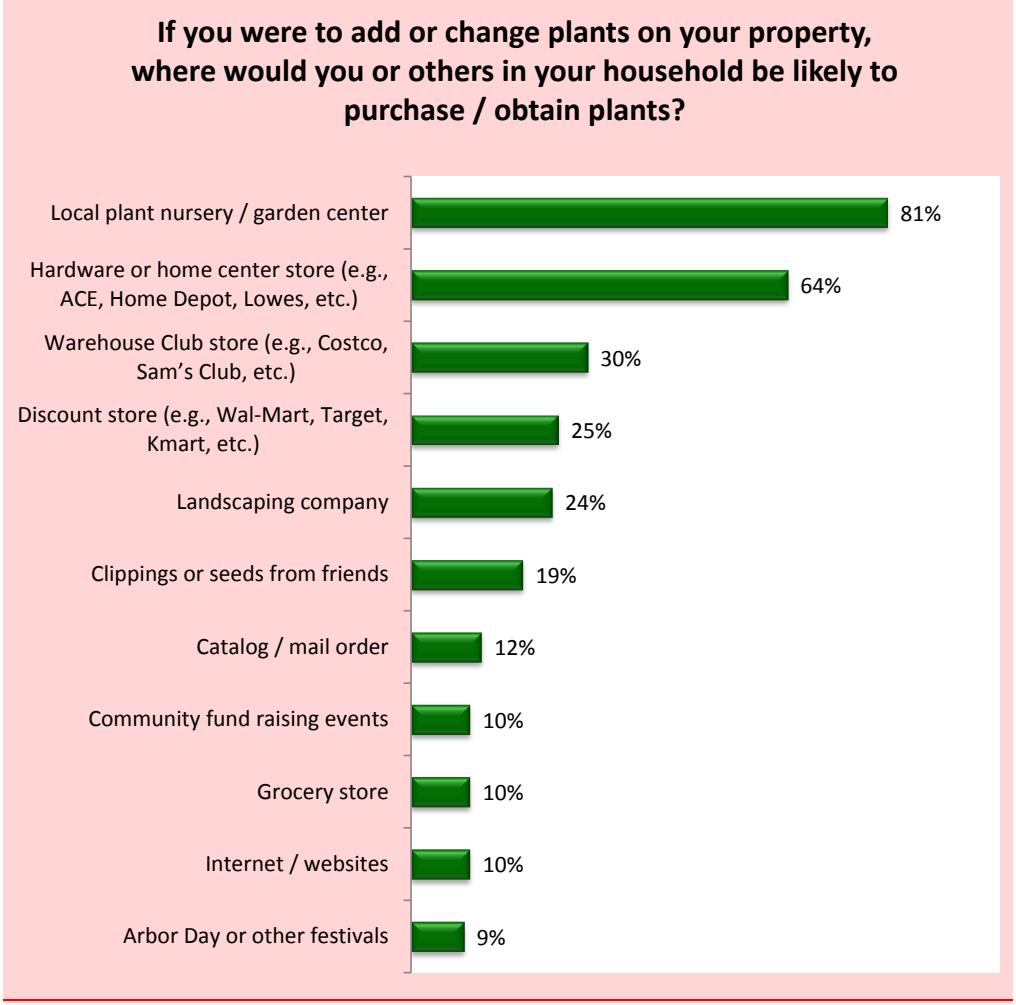
5. At the same time, slightly more than half would use the Internet and/or talk to friends and relatives to help them decide. In a follow-up question, respondents were asked to specify which websites they would visit if using the Internet. Most of the respondents who entered an Internet-related response indicated that they would use Google to search for information, while a few mentioned Yahoo.

6. One-in-five would be likely to consult gardening magazines, and one-in-ten would be likely to consult a seed order catalog. When asked for specific names, the most common responses were Better Homes & Gardens, Burpee, and Southern Living. A number of names were written in by two or just a few respondents, such as American Horticultural Society, Birds & Blooms, Breck's, Fine Garden, Garden Design, Martha Stewart Living, Merrifield, Park Seed, and Spring Hill. (Because these names were written in by a small number of respondents, we cannot be sure if these are commonly used sources in the general population or not. However, we are listing the names here in case the reader would like to have a list of publications to explore further.)

What sources would you or others in your household be likely to use to help decide what plants to purchase and/or how to care for your plants?



7. While the above chart covers sources used to help decide which plants to consider and how to care for them, the chart on the next page shows where respondents would expect to obtain plants if they were to add or change plants on their property. Interestingly, a very high proportion (81%) felt that they would be likely to shop at a local plant nursery / garden center.



8. In addition to the local plant nursery / garden center, many would be likely to shop for plants at various other places, such as a hardware store or discount store.

Comment [cm1]: Refer to the market research for information regarding how to reach consumers

-
- One clear answer is the point of sale decision and engaging with Garden Centers becomes critical
- All our volunteers can begin by carrying the message to their local garden center. "I want to buy NATIVE SPECIES ~~SPIECES~~ of plants. Do you have any?"

4.9. Next Meeting

- Scheduled for Thursday, June 19th from 10:00am to 12:00pm at NVRC

Comment [cm2]: The large conference room is already booked for that time so we will have to use the Occoquan room at the end of the hallway

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Regional Native Plant Campaign in Northern Virginia

Steering Committee Meeting

August 28, 2014 10:00-12:00pm
Northern Virginia Regional Commission
3060 Williams Dr., Suite 510, Fairfax, VA 22031

MINUTES

Attendance: Alan Ford, Joanne Hutton, Jim McGlone, Corey Miles, Beth Polak (phone), Mary van Dyke, Virginia Witmer (phone)

Grant to NVRC to support this program was not renewed by CZM. High demand for funding and limited matching funds affected ranking of our proposal. Funds may become available due to unspent money in other grants, but no commitment can be made.
Support for Coordinator position will end Oct.1. Funding for NVRC to provide coordination likewise ending. Corey will stay engaged as participant in Campaign. Use of NVRC meeting space may continue.

PLANT GUIDE: Final publication procedures for guide are under way. Primary goal is to get the book into print for distribution at plant sales beginning Sept. 13th. Some final edits have been sent to Virginia. Need time to check for technical problems.

Fund raising: Pledges of support have been received from PWWC for $1,500 and ARMN for $500.

Meeting with Merrifield Mary Van Dyke and Joanne Hutton. Overall response was positive but more abstract than committed response. More work is needed here. Materials will help

Banner has not been designed yet. Mary to design. Best format discussion covered vinyl banner, self-supporting sandwich board. Most likely location for display will be outside. Needs to be weather resistant and sturdy enough to survive bumps.

What is budget for point of sale materials (flyers, stickers, etc)
Effective communication will be person to person. Simple handouts may be most cost effective.

Additional printing of materials can be done during 45 day closeout.

Four sets of promotional materials will be developed for use and storage in each county. This to minimize access issues.

WEBSITE: Current site has been paid for one year. VNPS has volunteered to serve as website host, maintaining plantnovanatives.org as a forward. We need a web manager volunteer to help develop, maintain and update site on a regular basis.

Volunteer Outreach for planning Fall sale coverage was well done. Thanks to Mary. Volunteer Spot website was successful.
Need to develop reporting form for outreach events
Need to develop a follow up sheet for contacts, questions, suggestions

Tool kits need sign-up clipboard.

Agenda Items for next meeting:
Report out from Fall Plant Sales
Establish metric for distribution of Guide.
Plan for second printing
Demonstration Gardens Signage – should we add, update, and/or co-brand signage for demonstation gardens? What do we want to see at a site?
Materials budget for grant – review and understand what we have available and what our needs are.
Prior programs (Eastern Shore, Northern Neck) successes and lessons learned. How do we leverage what the two prior iterations of the outreach program learned? What materials did they find useful or popular? What materials could we use with little or no modification?

NEXT MEETING: THURSDAY, October, 9th

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