

Elaine Mills, presenter

### General Questions and Comments

Several attendees asked about **native shrubs that are evergreen**.

- **Inkberry** (*Ilex glabra*), a native holly, might be a good substitute for non-native boxwood. There are cultivars of various sizes available, including 'Nigra' (6-10'), 'Densa' (4-6'), 'Shamrock' (4-5'), 'Compacta' (3-4'), 'Chamzin' [sold under the trade name NORDIC] (3-4') and 'Gem Box' (2-3'). Note that Inkberry is a dioecious plant, and these cultivars are all female. It will be necessary to install a male of either the straight species or a cultivar such as 'Pretty Boy' or 'Squeeze Box' for a female plant to fruit.
- Nurseries that specialize in native plants are more likely than other nurseries to carry **Inkberry** plants of both sexes. When in bloom (mid- to late May), the flowers of male plants will display anthers covered with yellow pollen, while the flowers of female plants will have a central green nub.
- **Mountain Laurel** (*Kalmia latifolia*), another shrub mentioned in the talk, has glossy evergreen foliage. It is important to note that this shrub requires soil with a pH in the acidic range (4.5-6.5), so a soil test should be done before considering this shrub.
- **Rosebay Rhododendron** (*Rhododendron maximum*), is another evergreen shrub that prefers acidic soil (4.5-6.0). It grows 5 to 15 feet tall and has large pink-to-white flower clusters from June to July.
- The '**Maryland Dwarf** cultivar' of the American Holly tree (*Ilex opaca*) is another possibility. It forms a low, wide mound 2 to 3 feet high with dark green, minimally spiny leaves and some fruit production.
- **Northern Bayberry** (*Morella* [formerly *Myrica*] *pensylvanica*), which ranges from Newfoundland to North Carolina and inland as far as Ohio, is a dioecious species 5 to 10 feet tall with flowers that are not particularly showy. The fruit used for making bayberry candles is attractive to birds.
- The native range of several additional evergreen species extends from southern Virginia into the Southeast.
  - **Coastal Doghobble** (*Leucothoe axillaris*) grows 2 to 4 feet tall with a vase-shaped, fountaining habit. Its heather-like flowers bloom in April.
  - **Southern Bayberry** (*Morella* [formerly *Myrica*] *cerifera*), which grows 10 to 15 feet tall, is a coastal species tolerant of wind and salt spray. Its blue-gray fruits are ornamentally attractive and provide food for birds.
  - **Yaupon** (*Ilex vomitoria*), another dioecious native holly, has greenish-white flowers and red fruit on female plants. This species has many cultivars, including some that are weeping, or dwarf.



For those with concerns about a foundation planting looking bare during the winter months without all evergreen shrubs:

- Consider adding a **shrub** like Winterberry (*Ilex verticillata*) or Red Chokeberry (*Aronia arbutifolia*) that will have a show of fruit during at least part of the winter.
- Interplanting **evergreen ferns**, such as Christmas Fern (*Polystichum acrostichoides*) or Marginal Wood Fern (*Dryopteris marginalis*), and taller herbaceous species, such as Joe-pye-weed (*Eutrochium dubium*) or New York Ironweed (*Vernonia noveboracensis*) which have **showy seed heads**, can provide additional winter interest.
- The addition of **evergreen ground cover plants**, such as Alumroot (*Heuchera americana*), Allegheny Spurge (*Pachysandra procumbens*), or Plantain-leaved Sedge (*Carex plantaginea*) will also keep a foundation from looking bare.

Regarding the **ability of shrub cultivars to provide support to wildlife**:

- A study by University of Delaware entomologist Dr. Douglas Tallamy has shown that shrubs **modified for height**, such as Virginia Sweetspire (*Itea virginica*), can still serve as larval host plants, offer nectar and pollen for pollinators, and provide fruit for birds. One thing to note is that birds may not be able to use shorter plants for cover or nesting as they would with the taller straight-species plants.
- As mentioned in the presentation, a **change of color in foliage** is caused by a change in the leaf chemistry from the natural green chlorophyll to anthocyanins or carotenoids, making leaves unpalatable to butterfly and moth caterpillars.
- The main problem with a change in flowers is a **modification to the basic flower structure**. If reproductive parts (anthers and nectaries) are replaced by extra petals, there will be no floral resources for pollinators.
- The impact of a **change in the color of flowers** may be more difficult to determine. For example, Sweet-shrub (*Calycanthus floridus*) is pollinated by very small beetles, so it is difficult to measure the difference between visits to the straight-species plant with burgundy-colored flowers and the 'Athens' cultivar with yellow-green blossoms. To my knowledge, there haven't been any studies on this comparison.



For **gardens with clay soil**, native shrub species that prefer moist-to-wet soil will likely do best.

- According to the U.S. Fish & Wildlife Service publication “[Native Plants for Wildlife Habitat and Conservation Landscaping](#),” many shrubs can grow in clay soil. See pages 43 to 53 for details.
- The annual **addition of organic matter**, such as bark, leaf mulch, and compost, can help to improve soil structure and drainage. Several inches of the material should be added to the surface of garden beds rather than tilled in. An added benefit of organic matter is that, as it breaks down, it will contribute nutrients to be taken up by plants and will feed the soil microbiome.

There were a question and several comments regarding **invasive species**.

- ‘Harbor Dwarf’, ‘Fire Power,’ ‘Gulf Stream’, and ‘Nana’ are **dwarf cultivars** of *Nandina domestica* that may be considered less invasive because their fruit is less abundant. Any Nandina that bears fruit could potentially be a problem because the fruit may be spread by birds to natural areas, and it is toxic to some animals. Native fruiting shrubs can provide the ornamental qualities gardeners seek while providing a wide range of support for wildlife with the nectar and pollen of their flowers, the nutrition of their leaves for butterfly and moth caterpillars, and nourishing fruit for birds.
- One participant commented that she has used a Pullerbear, an Extractigator, and a weed wrench as **extraction devices** for removing Rose of Sharon and other invasive shrubs and prefers the first.
- Another participant recommends **caging vulnerable native shrubs**, such as Pinxterbloom Azalea (*Rhododendron periclymenoides*) from browsing deer until they are large enough to stand the pressure.
- Please see links in the handout for helpful resources on invasive plants, including their removal.

In response to an inquiry about **shrubs that attract hummingbirds**, consider:

- Pinxterbloom Azalea (*Rhododendron periclymenoides*)
- Sweet Pepperbush (*Clethra alnifolia*)
- [Rosebay Rhododendron](#) (*Rhododendron maximum*)
- [Bottlebrush Buckeye](#) (*Aesculus parviflora*) - native to Southeast



### Questions & Comments Regarding Specific Plants

A question also arose about distinguishing between Asian and native species of Viburnums. Here are a few characteristics to look for in the invasive plants:

- Invasive **Doublefile Viburnum** (*V. plicatum*) has distinctive horizontal branching with flowers held in double rows and strongly-veined leaves with pleated upper surfaces. Its flowers resemble lacecap hydrangea blooms with a center of small fertile flowers surrounded by a ring of showy sterile flowers. One variety has snowball-shaped flowers.
- The leaves of invasive **Linden Viburnum** (*V. dilatatum*) are somewhat round to oval, resembling those of the linden tree. Its red fruit is held on red stalks.
- Invasive **Siebold Viburnum** (*V. sieboldii*) grows quite large and has elliptic leaves.
- Invasive **Tea Viburnum** (*V. setigerum*) has oval to lance-shaped leaves and dangling clusters of fruit.
- There are five things you can do to correctly distinguish these from the desirable native species:
  - Follow the handout links to fact sheets with photos of the native shrubs.
  - Look closely at the photos of the native viburnums included in the recording of the presentation when it becomes available on the MGNV website.
  - Use a phone app such as iNaturalist that helps identify plants.
  - If you have an Audubon at Home program near you, ask an ambassador to come to your yard to identify the plants you have and determine which ones might need to be removed and replaced.
  - Send photos of your plants to me (Elaine Mills) care of our [Help Desk](#).

Regarding possible **problems with Inkberry** (*Ilex glabra*), regardless of cultivar:

- Missouri Botanical Garden describes the plant as generally having no serious insect or disease problems. **Leaf spot** is an occasional problem, and **spider mites** may appear in dry conditions. Holly leaves may yellow from **chlorosis** in high pH (alkaline) soils.
- **Anthracnose** appears as light tan to darker brown circular spots on the leaves. It spreads through spores in moist weather, which can be seen as tiny pink dots in the leaf spots. This disease can be prevented by avoiding overhead watering and controlled by pruning out diseased limbs.
- Two types of **root rot** may cause yellowing of the leaves, early leaf drop, and branch dieback. These occur most often with flooding and extreme heat. Fungicides can stop



the spread of these diseases but cannot cure the plant. Prevention by planting in well-draining soil is the best plan.

- **Cankers**, which appear as sunken or cracked patches of wood, girdle the stems so nutrients can't reach the leaves, causing yellowing and dieback. Diseased branches should be pruned out. Watering during drought and mulching to retain soil moisture are beneficial care practices.

There was a request for a discussion of the various cultivars of **Inkberry** (*Ilex glabra*).

- The straight species of this plant tends to become somewhat open and leggy as it reaches its full size, and various cultivars have been bred to counteract this drawback.
- The website of Piedmont Master Gardeners has a detailed blogpost on "[Inkberry - A Native Evergreen Shrub](#)" with discussion devoted to a number of the popular cultivars.

A question was posed about **replacing Arborvitae**.

- [Arborvitae](#) (*Thuja occidentalis*) is a native evergreen species that is sometimes classed as a tree because it can grow from 20 to 60 feet tall. It has a number of shorter cultivars.
- Many gardeners find this a handy plant to use in narrow spaces with its columnar shape. It provides excellent cover for birds with its branchlets of scale-like, dark green needles.
- Those who would prefer a different plant might consider the Yaupon holly (*Ilex vomitoria*) described above.

**Common Ninebark** (*Physocarpus opulifolius*) is a monoecious species with flowers containing all reproductive parts. It doesn't require a separate plant to produce its attractive seed capsules.

One participant expressed **concerns about Viburnum Leaf Beetle**, an invasive insect originally from Europe and Asia that feeds exclusively on plants in the *Viburnum* genus.

- Its current range includes eastern Canada and the eastern U. S. as far south as Ohio and Pennsylvania. Its southward spread may be limited by mild winters as its overwintering eggs require a prolonged chilling period.
- Unfortunately, the non-native and invasive species of *Viburnum* are more resistant than the native species. Cornell University has compiled a list (updated 2020) of species ranked by susceptibility to infestation:



- Arrow-wood (*Viburnum dentatum*), Possum-haw (*V. nudum*), and American Cranberrybush (*V. opulus*) are listed as highly susceptible species that are the most likely to be attacked and destroyed in the first two to three years following infestation.
- Mapleleaf Viburnum (*V. acerifolium*) is listed as susceptible and will eventually be destroyed.
- Black Haw (*V. prunifolium*) is moderately susceptible and is usually not destroyed by the beetle.
- See a [fact sheet from UMass Extension](#) for an overview and management strategies.

A participant asked whether **Oakleaf Hydrangea** (*Hydrangea quercifolia*) can be grown in containers.

- The straight species is quite large at 6 to 8 feet tall and wide.
- Two **semi-dwarf cultivars**, ‘Ruby Slippers’ (3-5’) and ‘Munchkin’ (3-4 ½’) and two **dwarf cultivars**, ‘Sike’s Dwarf’ and ‘Pee Wee’ (both 3-4’), could be suitable for growing in containers.

One participant commented that the **fruit of Black Chokeberry** (*Aronia melanocarpa*) can be microwaved without sugar and eaten as a topping that is similar to cranberries. These berries are especially nutritious, serving as a source of vitamins C, A, and E; beta-carotene; folate; and several minerals.

A participant asked for clarification between several mentions of “allspice.”

- **Carolina Allspice** is an alternative common name for the shrub I introduced as Sweet-shrub (*Calycanthus floridus*). At MGNV, we use the latter on our Tried and True fact sheets because that is the common name listed in the *Flora of Virginia*, the publication we use as our authoritative source. The strap-like flowers of this plant are known for their fruity fragrance.
- I mentioned that the dried and ripened fruit of Spicebush (*Lindera benzoin*) can be grated and used as a **replacement for allspice in cooking**.

