

## Restoring A Healthy Ecosystem

A healthy ecosystem includes a diverse, interdependent collection of native plants and wildlife.

Over-browsing by whitetail deer has destroyed the forest understory throughout LRPRA. This destruction has: (a) disrupted the natural forest regeneration process; (b) eliminated the habitat of small mammals and low-nesting songbirds; and, (c) paved the way for the introduction of non-native invasive plants.

Restoring a healthy ecosystem is not just restoring a past ecosystem. Development has permanently changed the topography, covering large areas with impermeable surfaces (e.g., buildings, streets, parking lots). Space has been diminished and divided. The remaining exposed topsoil cannot absorb the excessive runoff from heavy rains causing erosion.



Mapleleaf viburnam

Maier

LRPRA has natural wildlife populations that include white-footed mice, chipmunks, squirrel, fox, beavers, whitetail deer, and invasive coyotes<sup>1</sup>. Reptiles include northern water snakes, ring-necked snakes, hog-nosed snakes, and venomous copperheads. Amphibians include Fowlers toad and the eastern box turtle. Birds include Carolina wren, black-capped chickadee, robins, cardinals, pileated woodpeckers, hawks, owls, and turkey. All have needs for food – some common, some unique, and some for one another. For example, hog-nosed snakes specialize on toads.

Birds and small mammals naturally disperse seeds from both native and non-native plants. Others are windblown. Non-native invasive plants frequently take root in over-browsed areas, displacing native plants. The reintroduction and propagation of native plants is hampered by whitetail deer browsing natives in preference to less palatable invasive plants.

Residents can support restoration by promoting attractive native trees and shrubs (e.g., fringe tree (*Chioanthus virginicus*), flowering dogwood (*Cornus florida*), mapleleaf viburnum (*viburnam acerifolium*), arrowwood (*viburnum dentatum*)) on property borders. They can also remove invasive plants such as garlic mustard (*Alliaria petiolata*), that may be growing on the edge of their property, thereby curtailing their propagation. Viburnams, strawberry bush, and one blueberry have reestablished naturally behind my house. Because deer have discovered them, I now need cages to protect emerging additions.

Initially, many plants may need protective cages and it will years be years before these populations are self-sustaining.

The Virginia Invasive Plants List is online at:

<http://www.dcr.virginia.gov/natural-heritage/document/nh-invasive-plant-list-2014.pdf>

Plant Invaders of Mid-Atlantic Natural Areas regional invasive plants and provides a list of suitable alternatives to invasive herbaceous forbs, shrubs, trees and vines

<https://www.invasive.org/eastern/midatlantic>.

Mistaken Identity describes the differences between invasive plants and native look-alikes  
[https://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs144p2\\_024329.pdf](https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_024329.pdf)

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<sup>i</sup> Coyotes are here to stay so we need to avoid habituating them. See previous articles on Habituation on page 13 of the January issue (<https://indd.adobe.com/view/64ccf271-9477-4193-abd1-6cf4ceef35de>) and Coyotes on page 11 of the February issue (<https://indd.adobe.com/view/c3121887-fab1-436c-aba8-de29f4042781>)