

Landscape Choices Inspired by Nature

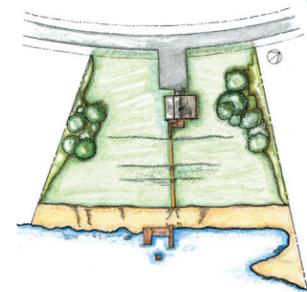
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Habitat Loss and Ecosystem Function

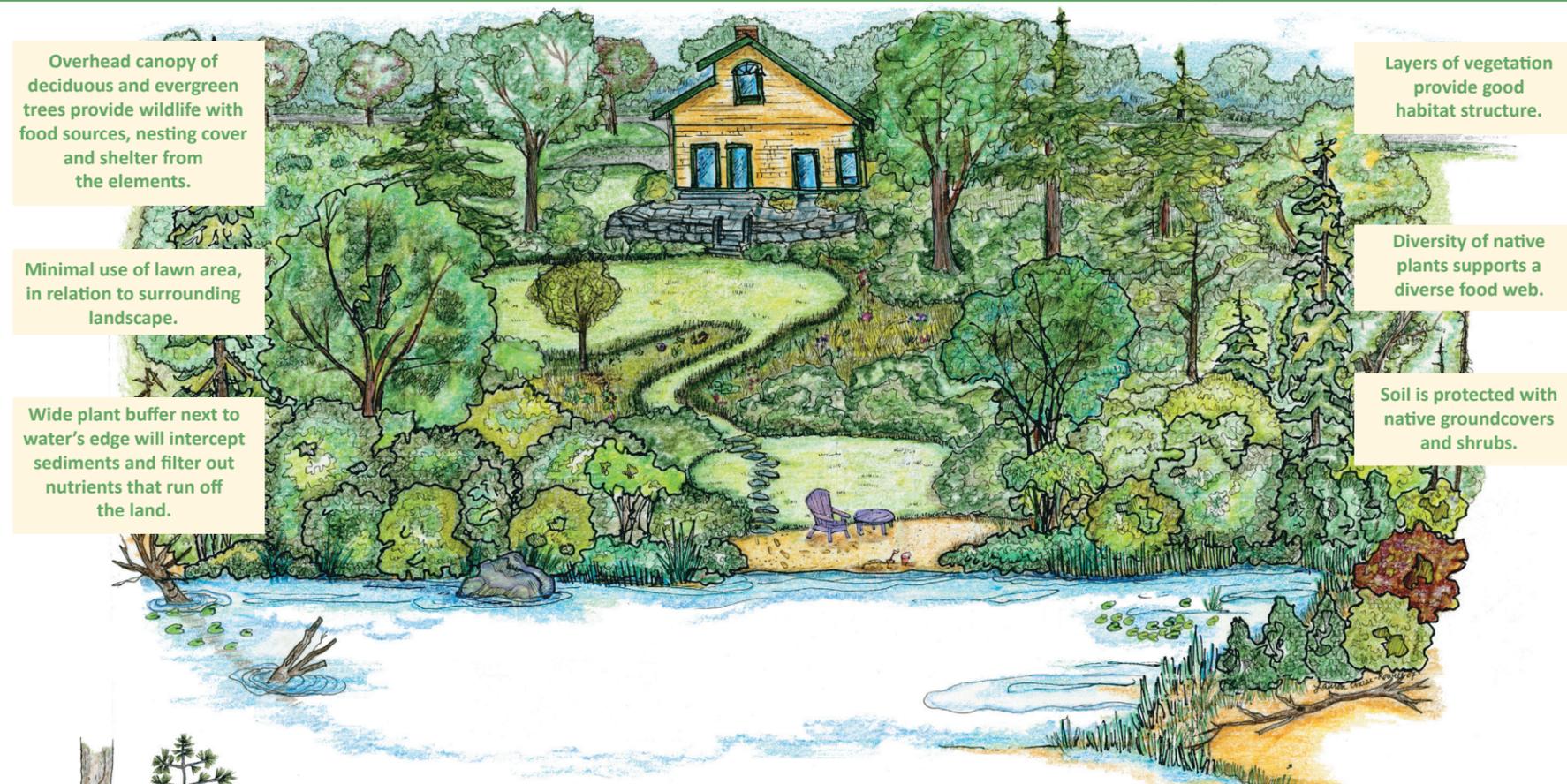
Wildlife needs our help more than ever. Over 884 species are currently listed in the Virginia Wildlife Action Plan as “Species of Greatest Conservation Need,” including species we’ve probably taken for granted as being very common, such as the gray catbird, eastern box turtle, brook trout, tiger salamander, carpenter frog, little brown bat and rusty-patched bumblebee.

Almost 70% of the species listed in the Action Plan are invertebrates, a group that includes mollusks, spiders and many insect families like ants, bees and butterflies. Populations of these species of greatest conservation need—and indeed of all other wildlife species that aren’t yet listed in the Action Plan—are increasingly being threatened by extensive habitat alteration and losses that can be directly linked to the everyday choices we make across the landscape.

The challenge is that too many of us seldom consider the ecological function of our own yards. An ecosystem is a functional system of continuous energy exchange, made up of diverse plant and animal communities, as well as the non-living elements in the environment, like soil, water and sunlight. Ecosystems provide us with all the “services” we need to survive, such as oxygen in the air we breathe, or food and water. Healthy ecosystems contain robust, interactive assemblages of plant and animal species that co-evolved together, called natural communities.



Unfortunately, today’s urban and suburban landscapes provide very limited support of natural communities. Instead, we’ve replaced the complexity of forest, grassland and wetland ecosystems with vast artificial constructs of mostly non-native plant communities made up of exotic species we affectionately call “ornamentals.” Non-native landscapes are one of the greatest factors contributing to habitat loss, because non-native plants have very little to no value for wildlife.



Overhead canopy of deciduous and evergreen trees provide wildlife with food sources, nesting cover and shelter from the elements.

Minimal use of lawn area, in relation to surrounding landscape.

Wide plant buffer next to water’s edge will intercept sediments and filter out nutrients that run off the land.

Layers of vegetation provide good habitat structure.

Diversity of native plants supports a diverse food web.

Soil is protected with native groundcovers and shrubs.



The roots of trees, shrubs and other plants are crucial for holding soil in place and for soaking up rainwater before it can run off the land. Allow fallen leaves to remain on the ground, where they will recycle nutrients back into the soil and provide rich habitat for salamanders, box turtles, birds and other wildlife species.

Excerpt from the publication - *Native Plants for Virginia’s Capital Region*
Learn more about regional native plants at www.PlantVirginiaNatives.org

Group your landscape beds by placing shrubs adjacent to flowering perennials and by using groundcovers to fill all the spaces between the other plants. This creates a layered habitat for wildlife and also minimizes the amount of exposed mulch where weeds can invade.



Re-Thinking Landscape Choices

You can make a difference! There are so many places around our homes, neighborhoods and towns where we can make simple changes to improve habitat quality for a broad diversity of wildlife species. Here are just a few tips, to get you started:



- 1) **Control or remove invasive species** that are known to be problematic in the environment, such as English ivy, Japanese honeysuckle, periwinkle, privet, butterfly bush, nandina, barberry, tree-of-heaven, mimosa and Bradford pear.
- 2) **Replace other non-native trees, shrubs and groundcovers** in your landscape with some of the native plants shown in this guide.
- 3) **Recycle the leaves that trees give you for free** in the fall by shredding them up with a leaf shredder or lawn mower, and use these as mulch around your landscape beds to build up organic matter and support a greater diversity of soil organisms.
- 4) **Be strategic in reducing the size of your lawn**; transition your landscape by gradually adding native shrubs and groundcovers in patches, which will require much less maintenance in the long run, once established.



Plants across the landscape provide the best protection for water quality and aquatic wildlife. When we shrink the lawn by adding layers of vegetation, we reduce the likelihood that soil particles and nutrients will end up in ponds, streams and other waterways.

Illustrations by Lauren Chase-Rowell, used with permission from *Landscaping at the Water’s Edge, an Ecological Approach*, c. 2007, University of New Hampshire Cooperative Extension (<https://extension.unh.edu/resource/landscaping-waters-edge-book>).