

Re-nativizing the Neighborhood

By Gordon Magill

When developers John and Irene Stead and builder George Koucky laid out Indianhead Acres in the mid-1950s, they thoughtfully left many of the existing trees. More than sixty years later, the Indianhead Lehigh Acres (IHLA) neighborhood remains an unusually natural area, with 80% tree cover according to local aerial studies. These mature, mostly native trees shade our homes and yards, conserve moisture, and allow our creek system to provide clean water for wildlife. We have populations of songbirds, woodpeckers, and raptors; small mammals and reptiles, including our iconic but threatened box turtles; and a small wetland bog that supports plants, reeds, and even beavers. We started out on the right foot, but what now?

What is a “sustainable” neighborhood, environmentally?

A sign at Optimist Park identifies IHLA as Tallahassee’s 2018 “Sustainable Neighborhood of the Year,” but what does “sustainable” really mean? According to *Our Common Future*, also called the Brundtland Report (1987), sustainable is a condition of development “that meets the needs of the present without compromising the ability of future generations to meet their own needs.” So we need to ask: in terms of the “natural neighborhood world” in which we live, how do we measure IHLA’s “sustainability?” Are we sustaining our plant and animal communities, so they will continue to find sustenance, mate, raise and feed offspring, and germinate and grow? Or are we a “habitat sink?”

A “habitat sink” is any place that looks inviting to wildlife, where they can colonize and reproduce, but that actually lacks the food resources needed to raise their young. A habitat sink draws wildlife from more productive environments to supply the new residents. Suburbia, with its vast acreage of ornamental plants and lawns, functions mostly as a habitat sink.

A study published in 2018 by the Smithsonian Conservation Biology Institute showed that Carolina chickadees living in neighborhoods with high non-native vegetation did not have sufficient, proper food resources to ensure breeding success and population growth. A clutch of four baby birds needs about 6,200 to 9,100 caterpillars to grow to the point of fledging—that is, being able to fly and forage. Research scientists determined that a sustainable habitat required “at least 70% native plants, preferably more or up to 100% native plants.” A suburban area with less than 70% native foliage would not have enough caterpillars and other larvae to sustain



Native songbirds need thousands of insect larvae to feed chicks in the spring. *Courtesy of the University of Delaware Department of Entomology and Wildlife Ecology*



A gray haristreak butterfly and sweat bee, both native species, share nectar and pollen from a native bear’s foot flower in a local garden. *Courtesy of Fran Cutrell Rutkovsky*

viable populations of songbirds or other wildlife, and was thus a “habitat sink.”

I suspect that most Nene yards do not have 70% or more native plant and tree biomass to produce the native insects that draw and sustain vibrant songbird populations. What we have instead are dozens of invasive plants growing unchecked because homeowners don’t know they are aliens. On my own lot, I’ve identified nandina, coral ardesia, crape myrtle, mimosa, camellias, Asian azalea, boxwood, cast iron plant, tung oil tree, kudzu, and carpets of small-flowered spiderwort—none of which are native species. If my lot is any example, we are a habitat sink, despite all of our greenery.

Why are native plants vital to wildlife?

For 200 years, imported trees and plants from Asia, Africa, and Europe have been marketed to American landscapers and gardeners, including Thomas Jefferson and George Washington. They have been pitched as being beautiful, easily maintained, and insect-proof. In



The invasive Tahitian bridal veil from Central and South America flourishes along IHLA's stream banks and roadsides. *Courtesy of Gordon Magill*

fact, the investment in planting alien foliage has led to a decline in insects and their songbird predators. Most imported plants are inedible to nearly all North American caterpillars, beetles, moths, butterflies, and species of birds and mammals. Most native insects cannot adapt to the leaves on non-native ornamentals. And, although many songbirds feed on seed and suet left by humans in the fall and winter, most North American songbirds cannot raise and fledge young birds in the spring without thousands of caterpillars to feed them.

In 2014, the US Department of Agriculture reported that more than 40 million acres of ornamental grass covers the nation's lawns, golf courses, and parks—about the same acreage as all of New England. Lawns planted with turf grasses fed with chemical fertilizers release high levels of carbon and nitrous oxide, and they lack the sustenance needed by most insects, birds, and small mammals. During short walks around the IHLA neighborhood, I counted more than 150 areas of lawn greater than 50% of the lot size, and most were not under cover of large trees or shrubs. Unfortunately, many life science experts agree that cultivating neatly trimmed and well-fed lawns has created enormous sterile environments over much of the eastern US.

How can we “re-nativize” our home environment?

Despite this dour assessment, simple and successful ways exist to create a native plant environment that nurtures thousands of beneficial insects and songbirds. An example is provided at the West Indianhead Drive home of neighbors Angel and Tom Eason, who have well-

nativized their front- and backyards. They improved their landscaping by removing alien ornamentals and planting lots of native herbaceous perennials and shrubs. They left some old trees for woodpeckers and owls, greatly reduced their lawn size, and established perennial beds with paths. When I visited them, butterflies were drifting from flower to flower, and family members said abundant insects were eating plant leaves and making cocoons.

By not mowing the edges of my own small lawn for two years, and by spreading leaves, pine needles, and mulch, I've found small native plants such as Indian pink, white indigo, red salvia, Southern shield ferns, and beautyberry sprouting and growing. Saplings I did not cut back turned out to be swamp chestnut oak, black walnut, hackberry, and other native species.

Suggestions for “re-nativizing” our Nene yards and gardens

- Reduce turf expanse in home landscapes. Devote an edge or border, about six to ten feet wide, around your lawn and spread lawn clippings, leaves, pine needles, small branches and twigs, and other organic material.
- Allow leaves of native trees, especially oaks, to compost on the ground, under trees, and on garden and lawn edges. Many species of caterpillars pupate in the soil and need leaf litter protection to become adult butterflies and moths.
- Rather than sending compostable plant material to the county solid waste depot, compost and use it as mulch under trees and shrubs to enrich soil organisms.
- Mow and fertilize lawns less often. Allowing grass to grow longer helps the soil to aerate, retain moisture, and rebuild. Use decomposed lawn clippings to fertilize the lawn.
- Plant large native trees on open lawn areas, in groups of three or small, well-spaced “groves.” Fill in with understory native trees, shrubs, herbaceous plants, and ground covers. Create a natural insect oasis!
- Turn off outside lights at night, especially in spring and summer, and pull shades or curtains over windows. Use yellow LED bulbs in outside lights to reduce the number of moths that are attracted to and die from exhaustion flying around artificial lights.

Re-nativizing the Neighborhood (cont.)



- Leave old wood, branches, or tree trunks on the ground to decompose and provide shelter for native bees, wasps, beetles, worms, ants, and other beneficial insects.

IHLA residents can do a lot to improve the natural state of the neighborhood. By gradually replacing alien plant and lawn varieties with native species, we can and eventually will transform our “micro-ecology” in ways that are amazing and beneficial.

For a list of related resources, contact the author at tallyman01@comcast.net.



A new home in Tallahassee has abundant lawn but no bird-friendly native planting.

Courtesy of propertyshark.com

This IHLA garden features native plants and shrubs rather than ornamentals and lawn. *Courtesy of Gordon Magill*

