

## **Background on Invasive Plant Removal Project**

Since the 2011 death of Dr. Joe Christian, the person most closely associated with the creation of the Bog Garden, the garden has become overrun by non-native invasive plants. In 2012, a Bog Garden Management Plan was developed by Dr. Ken Bridle, Stewardship Director with the Piedmont Land Conservancy, in consultation with the City and Greensboro Beautiful. Beginning in November 2017 a small core group of volunteers (i.e., “The Bog Garden Plant Committee”) has held weekly work days to remove invasive plants and install native plants that are appropriate for the site.

The Plant Committee developed: (a) a management plan outlining the restoration strategy with a focus on the natural community of a piedmont alluvial forest; and (b) a plant list denoting desired native plants as well as unwanted invasive plants. This plan is now being implemented.

Since November 2017, volunteers have removed many invasives (primarily Fig Buttercup, English Ivy, bush honeysuckle, Japanese honeysuckle, and Japanese knot weed). As of August 2018, volunteers have planted nearly 1,500 native plants in the Bog Garden, representing at least 59 different species. Many of the native plants were rescued plants, some were propagated from seed by N.C. A&T horticulture students, some were donated by NC Native Plant Society members, and some were purchased with funds from the Piedmont Bird Club and Greensboro Beautiful. Greensboro Beautiful received a \$1,000 grant from the NC Native Plant Society's B.W. Wells Stewardship Fund; and \$300 from the T. Gilbert Pearson Audubon Society to assist with the purchase of native plants for installation at the Bog Garden Entrance to replace nearly 60 invasive bush honeysuckle shrubs that will be removed during the fall of 2018.

Tim Hanauer of Earth Graphics visited the Bog Garden during the summer of 2018, and donated his time to develop a design for new native plantings in the Feather and Fronds area facing Starmount Farms Drive.

## **Why do native plants matter?**

All species need food (energy) to grow, survive, and reproduce. Energy is distributed through ecosystems through food chains and food webs. For example, squirrels eat acorns. So squirrels need oak trees to collect energy from the sun and grow those acorns. Multiply that single food chain (sun → oak tree → squirrel) many thousands of times and you will have a food web, where each plant supports specific birds, mammals, insects, or other wildlife species.

Of course, plants do not take kindly to being eaten. To discourage animals from eating them, plants have developed various defensive mechanisms. Plant defenses may include toxic chemicals in their leaves/stems or physical barriers (e.g., thorns, hard seed coverings).

For a particular animal to feed on a particular plant, it needs to evolve the means to get around that plant's defenses. For example, monarch butterfly caterpillars are able to feed on milkweed because they have evolved to do so—other insect larvae without those adaptations would not be able to handle the mild poison in milkweed's sticky white sap.

Here's the key point when it comes to native plants: scientists estimate that it takes more than 10,000 years for a feeding relationship to develop between a particular insect and a particular plant. When a native plant is introduced to an area, the native insects cannot feed upon it, insect-eating birds cannot feed on the insect larvae, and raptors and other bird predators have fewer birds to eat. In short, the whole ecosystem suffers.

## Why focus on native plants in the Bog Garden?

As cities grow and forests come down to make room for development, there is less and less land left undeveloped to support native plants. It is, therefore, essential to promote native planting wherever feasible. The Bog Garden is a restored natural area. It is the perfect place to ensure that native plants exist to support local wildlife. Doing so furthers the mission of Greensboro Beautiful to conserve and enhance the beauty and ecology of our community.

## How can I help?

Greensboro Beautiful, a private non-profit, relies upon donations to complete its work. Donate [here](#).

If you are able to volunteer your time, please [contact Greensboro Beautiful](#). Please note that training is required to participate in invasive plant removal and native planting.

## Where can I learn more?

[Bog Garden Management Plan](#)

North Carolina Native Plant Society's [list of invasive plants](#)

[List and information on invasives](#) from the North Carolina Botanical Garden

North Carolina State University's [list of invasive, exotic plants of the southeast](#)

["Bringing Nature Home"](#), by Doug Tallamy

[Better Plants for Birds and Other Wildlife](#)

[Invasive Plants at the Bog Garden](#)