

Creating a Backyard Wildlife Habitat

Sue Stark

The photos in this article are taken at Frog Hollow, the garden of longtime Scott Arboretum members, Eve and Per Thyrum. Their garden has been a certified wildlife habitat since 1980, one year after moving in! Emerging from the birdhouse is a House Wren.



Green frog

P. THYRUM

Long ago I was inspired by Sara Stein's books *Noah's Garden: Restoring the Ecology of Our Own Backyards* and *Planting Noah's Garden: Further Adventures in Backyard Ecology* which describe the importance of backyard ecology and homeowner land stewardship as a means of promoting and preserving biodiversity in suburbia. Recently, another inspiring and fascinating book has been written by Doug Tallamy about the importance of nurturing local ecosystems in our own backyards. In *Bringing Nature Home*, Tallamy argues that because we live with habitat destruction and fragmentation, it is critical that we restore the habitat in our own backyards to prevent the loss of many species and even large-scale extinctions. He describes in great detail reasons for and ways to enhance one's property to support local wildlife.

Through Sara Stein's books I learned about the Wild Ones, a national organization based in Milwaukee, Wisconsin, which advocates the use of native plants in natural landscapes, the preservation and restoration of native plant communities, and environmental education. Our local chapter of Wild Ones is called the Habitat Resource Network of Southeast Pennsylvania (HRN) and combines the national organization of Wild Ones with the National Wildlife Federation (NWF) Backyard Wildlife Habitat program. The mission of the HRN is to create a network of people, organizations and resources to support the restoration and maintenance of wildlife habitat and to promote sustainable landscape practices in southeastern Pennsylvania.

In the spring of 2007, the HRN sponsored a Wildlife Habitat homeowner course, a weekend workshop intended to help homeowners develop their garden plans within the framework of the backyard wildlife habitat certification program of the NWF. I had recently moved into a house with run-down landscaping and thought designing a backyard wildlife habitat would be a fun and educational cornerstone for my new garden. The course was run by HRN volunteers who are also certified by the NWF as Habitat Stewards, volunteers who are trained to help people in the community create and restore wildlife habitats on their properties. We investigated our backyards for ways to cultivate and enhance wildlife habitats through providing food sources, sources of drinking water, places for cover and shelter, places to raise young, and the use of sustainable gardening practices.

Because plants provide the first trophic level of food for the entire ecosystem, they are critical in determining the types and diversity of wildlife that will survive in any specific ecosystem. According to Tallamy, leaf-eating insects are the main source of food for birds and it is better to plant native forbs, shrubs, and trees since they are palatable to a wider variety of native insects in their various life stages. Tallamy's book has an extensive list of native plants that provide food as well as great discussions



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about what types of food are needed for different types of wildlife throughout the year.

Deciding what qualifies a plant as being native can be challenging and sometimes subjective. I try to pick plants I know to be native to the mid-Atlantic deciduous forest ecosystem that probably existed where my house now sits. But often aesthetics and availability get in the way of choosing such plants. In addition, I believe cultural conditions in my yard have changed since pre-development, so I look for plants that will do well in the current conditions. I frequently use cultivars of native plants because they are more readily available in the trade. All in all, I focus on plants that are native to the mid-Atlantic region and use my best judgement as to whether they will help support biodiversity in the local ecosystem. My favorite website for determining the native range of a plant is <http://plants.usda.gov>.

Another very important factor in creating a successful backyard wildlife habitat is to provide drinking water. A water feature may be as simple as a clean birdbath, or as complex as a pond ecosystem. The more movement of water and variety of habitat a water feature provides, the more attractive it will be to a larger variety of wildlife. Areas with moving water will attract visitors by sound and sight. A pond with a beach area will attract smaller reptiles and mammals and a gentle slope will allow them safe access to water.

Providing cover and places to raise young are very important in the backyard wildlife habitat. Wild fauna require places to hide in order to feel safe from people, predators, and inclement weather. They also need a sheltered place to raise their offspring. Native vegetation is one of the best ways to provide cover; leaving dead stems and leaves in beds through the winter provides crucial habitat. In addition, shrub thickets and brush piles are great hiding places. Dead trees can provide food as well as cover for a variety of animals. Man-made items such as birdhouses can provide additional shelter. You can create hiding places for animals by using logs, brush, or rocks, or by constructing a birdhouse made for the types of birds you would like to attract to your habitat. Ponds provide cover for aquatic wildlife, including fish, insect larvae, and amphibians.

Gardening with sustainable practices further enhances the wildlife value of a property. Some of the techniques suggested by the NWF backyard habitat program are reducing lawn areas, mulching, using rain barrels, and xeriscaping.

Lawns are generally a monoculture with little wildlife value that require a consistent input of chemicals and mowing. Replacing lawns with gardens or a native lawn alternative can reduce effort and environmental impact while adding wildlife value. If you have a lawn, mowing less often will reduce pollution and fossil fuel use and make for a stronger and healthier lawn. At the Scott Arboretum we are trialing lawn alternatives in specific sites around the Science Center.

Avoiding the use of chemical pesticides and herbicides is a very important part of sustainable gardening. Pesticides not only kill their target species, but also many other organisms that provide food for larger animals. Using herbicides selectively if at all is essential for the health of the ecosystem.

Mulching helps keep water in the soil for plants and reduces water use. As mulch breaks down, it provides nutrients for the plants, reducing the need for fertilization.

The use of rain barrels is another sustainable practice. By collecting rainwater from gutters, rain barrels reduce the amount of tap water used in the garden while providing pure water for watering plants and filling water features. They also reduce runoff from the property.

Xeriscaping, or planting drought tolerant plants, is another practice recommended to reduce water use. Letting plants go naturally dormant during times of drought stress is also a great way to reduce water use in the garden.

It was easy to certify my yard as a backyard wildlife habitat

(the link is listed at the end of this article). Our yard is surrounded by a frame of mature American hollies, *Ilex opaca*, and flowering dogwoods, *Cornus florida*, both of which are native and have great wildlife value. Since taking the homeowner course, I've added many native perennials and shrubs that will provide food for pollinators and birds as well as cover for insects and small animals while removing many non-native invasive species such as gout-weed, *Aegopodium podagraria*, porcelainberry, *Ampelopsis brevipedunculata*, and English ivy, *Hedera helix*. I've created a modest water feature with a slow trickle that immediately attracted many insects and birds. I've seen a variety of dragonflies and wasps attracted to the water. Cardinals, Titmice, Sparrows and Goldfinches are frequent bathers there too. I've created a stick and wood pile in the back corner where I've seen chipmunks, snakes and salamanders. I'm working on a very small meadow in the backyard planted largely with plugs from North Creek Nurseries received through a Wild Ones group purchase; there I've planted *Sporobolus heterolepis*, *Silene caroliniana* var. *wherryi* 'Short and Sweet', *Rudbeckia subtomentosa* 'Henry Eilers', and *Symphytotrichum laeve* 'Bluebird'. I'm also experimenting with a butterfly garden in the front yard in place of lawn; I've put in *Asclepias purpurascens*, *Asclepias verticillata*, *Liatris squarrosa*, *Phlox carolina*, *Pycnanthemum tenuifolium*, and *Echinacea pallida* to name a few. So far, I have learned a lot about the potential for creating abundant habitat in our small third of an acre as well as enjoying the benefits of much increased diversity in our yard.

Check the HRN website for forthcoming courses. Through HRN, you can also arrange for a personal visit from a habitat steward who can assist you in creating a backyard wildlife habitat and even certifying your property. For more information, be sure to catch Doug Tallamy's lecture at the Scott Arboretum on Thursday, February 12 at 7:30 PM in Science Center 101. All books listed in this article are available in the Scott Horticultural Library.

Some links of interest:

www.for-wild.org/
www.habitatresourcenetwork.org/index.html
www.nwf.org/backyard/
www.valleyforgeaudubon.org/bfn/index.asp
www.northcreeknurseries.com
www.bringingnaturehome.net/

Upcoming...

Workshops on rain barrels and water conservation as well as building your own wren birdhouse will be featured in the Scott Arboretum Spring-Summer 2009 Schedule of Events. Register online starting in January at www.scottarboretum.org

Great Blue Heron



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