



What is growing in your backyard?

Chances are that along with your flowers, shrubs and trees there are non-native invasive plants on your property. Without natural enemies to check them, these plants crowd out native species and create a monoculture that reduces biological diversity.

Your backyard can be both beautiful and a healthy environment for many species of birds, butterflies, beneficial insects, and other wildlife.

The kinds of plants you choose will determine the wildlife species attracted to your yard. Even a modest increase in native plants at the base of the food web can significantly increase the number and diversity of breeding birds, including species of conservation concern.

By planting native species you will provide food for the greatest number of insects. This, in turn, will help to sustain a wide range of wildlife.

Quick Facts:

- Songbirds have declined 40% in the last 50 years.
- Grassland birds have declined up to 80%.
- Native ornamentals support 30 times more biodiversity than alien ornamentals.

This exhibit illustrates a few examples of how using native plants and eliminating invasives and alien ornamentals will bring healthier biodiversity to your backyard.

Why not be a part of the solution?

Next time you choose plants for your garden or yard, Go Native!

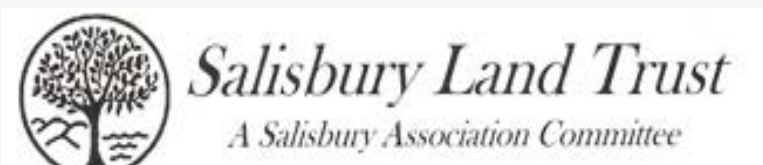


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Attract Birds with Native Berry Plants



Cardinal attracted to dogwood berries

Native berry-producing shrubs such as winterberry, red chokeberry, arrowwood viburnum, and cranberry bush provide an important source of food for birds, small mammals and other wildlife. Many migrant birds rely in part on berries for energy just before and during their flight south, and nonmigrants eat berries and their seeds throughout the winter months. Unlike alien plants, native plants also support a greater number of insects that birds need as a protein source during reproduction.

Sumac serves primarily as a winter emergency food for wildlife. Ring-necked pheasant, bobwhite quail, wild turkey, and about 300 species of songbirds include sumac fruit in their diet. It is also known in the winter diet of ruffed grouse. Fox squirrels and cottontail rabbits eat sumac bark. White-tail deer like the fruit too, and the stems.



Sumac

Chickadee foraging for sumac berries



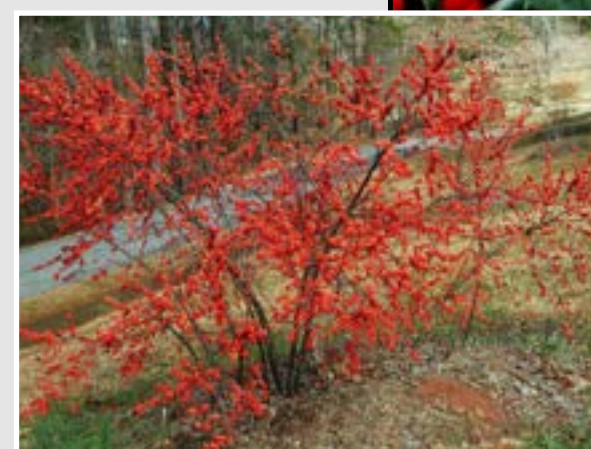
Robin with hawthorn berries



Hawthorn



Bluebird attracted to holly berries



Winterberry Holly



Cedar waxwings eating crabapples

Go Native! Attract Butterflies



Joe-Pye weed



A field rich in Joe-Pye, goldenrod, milkweed, Black-eyed Susan, and other native perennials supplies copious amounts of insect bio-mass for birds to feed their young.

Having weed in its name does not do the Joe-Pye plant justice. Perhaps the best terms to use to define this plant would be wildflower, herb and butterfly plant. When grown in mass, Joe-Pye adds spectacular color to the surrounding landscape.

Monarch butterflies cannot survive without milkweed; their caterpillars only eat milkweed plants, and monarch butterflies need milkweed on which to lay their eggs. Much milkweed has been lost from the landscape, and it needs to be restored.



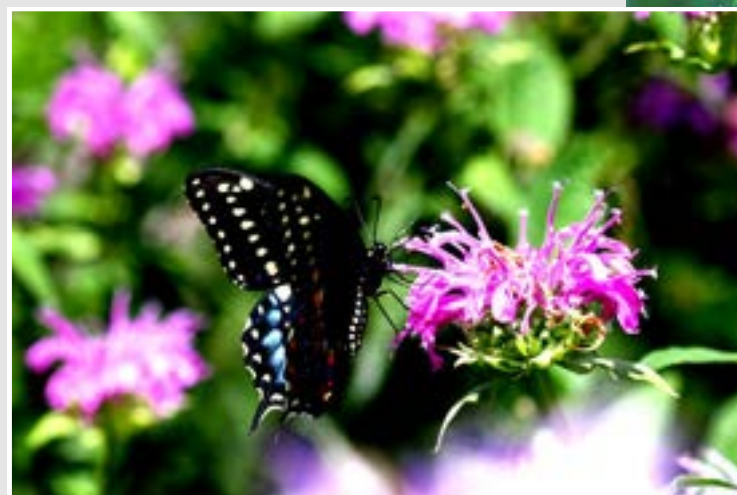
Milkweed



Black-eyed Susan

Black-eyed Susan, a North American native, blooms from summer to frost. It is a popular perennial in gardens and meadows and an excellent source of nectar for butterflies. These yellow flowers attract larger butterflies like swallowtails and monarchs.

Bee balm flowers are brilliant additions to late-summer herb gardens and flower borders. Butterflies, hummingbirds, bees, and other nectar-seeking creatures covet the tubular flowers on the plant's rounded flower heads, and the leaves and flowers can also be made into tea.



Bee Balm

Beneficial Insects in Your Garden

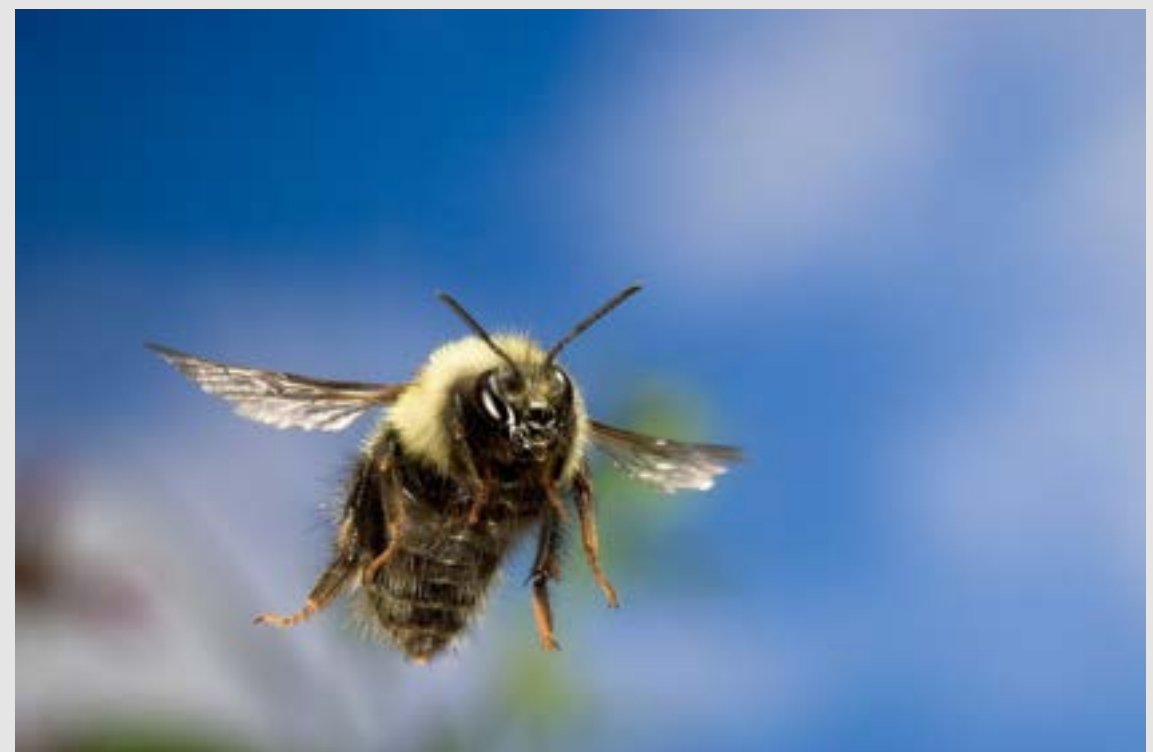
Among the many thousands of insect species on earth, 99% play a positive role: they pollinate plants, return nutrients in dead plants and animals to the soils, aerate and enrich the soils, and provide food, either directly or indirectly, for most other animals. Predator insects keep the number of herbivore insects (plant-eating insects) in check, reducing the use of insecticides. And, predator insects, like herbivore insects, are an important food source for many species of birds.



Lady beetles are an example of nature putting bounds on some insect populations. These predator beetles eat aphids, mites, and mealybugs.



Praying mantis dine primarily on insects like flies, crickets, moths and mosquitoes. Because of their voracious appetite for insects, praying mantis are considered a friend to farmers and gardeners as a natural form of pest control.



Bumble bees pollinate plants that other insects might overlook. Since these bees are less aggressive than other bees, they are also no threat to the average gardener.



Damsel bugs feed on aphids, small caterpillars, leafhoppers, and other pesky pests.



If your goal is to have a pesticide free garden, attract beneficial insects like **soldier beetles**. They have frequent contact with flowers and are important pollinators.

Native Plants

Native plants help to maintain biodiversity by providing more food sources and habitats than alien species.

Native plants form the base of the complete food chain. They sustain butterflies and other insects, amphibians, reptiles, birds and small mammals. By planting natives, you can help reverse or slow down species loss.

For over a century ornamental landscape plants from Asia and Europe have been favored over plants that evolved here. Native insects evolved to eat plants with specific chemicals and many have not adapted to feeding on non-natives. A good example is the widely planted Kousa dogwood from China which supports no insect life, while a native flowering dogwood supports 117 species of moths and butterflies. Native ornamentals support about 30 times more biodiversity compared with non-native ornamentals.

Once native plants are established there are many additional benefits:

- Less maintenance
- Less watering
- Self-sustaining
- Fewer pesticides
- Less fertilizer
- Less storm water runoff
- More resistance to drought and disease



Native plants have evolved to adapt to local environmental conditions. They require less water, less fertilizer and fewer pesticides while sustaining birds and other wildlife.



Native flowering dogwoods support many more species of moths and butterflies than do non-native ornamentals.



Milkweed is the host plant for monarch butterfly caterpillars. When the caterpillars emerge, they depend on milkweed foliage as their sole source of food.



The striking white flower balls of **buttonbush** are a wonderful nectar source for butterflies in summer.



With a variety of native flowers like **Black-eyed Susan**, your backyard can be a sanctuary for goldfinches and other birds.

Invasive Plants

Invasive plants thrive outside their natural range, creating monocultures that threaten the health of our native plant and animal communities.

Controlling invasives is a challenge, but the benefits are great!

By replacing invasive species with natives, your yard will be naturally beautiful and a place for you and wildlife to enjoy year-round.

Why Invasives Are Invasive

- They are quick to establish.
- They grow rapidly once established.
- They are long flowering and produce many seeds and fruits that disperse and further disrupt the natural balance.
- They spread very effectively to new or disturbed areas.
- They are aggressive competitors, free of the natural controls present in their native lands, including herbivores, parasites, and diseases.

This Land Trust exhibit highlights only a few of the many invasive species that are a major problem in our area. Among other invasives that negatively impact our local environment are:



Privet is a successful invasive species because of its ability to outcompete and therefore displace native vegetation. Data suggest that forests containing large amounts of privet tend to have less insect diversity, including butterflies, and fewer species of shrubs.

Japanese Knotweed spreads quickly to form dense thickets and pushes out native plant species. Knotweed poses a significant threat to riparian areas where it can survive flooding events and rapidly colonize streambanks and wetlands. Once established, populations are very persistent.



Norway Maple trees produce large numbers of wind-dispersed seeds that invade forest stands and open disturbed areas. Its dense canopy inhibits the regeneration of sugar maple and other tree seedlings, reducing forest diversity. Its shallow roots compete with other plants in the landscape.



Non-native **Phragmites**, also known as common reed, is an aggressive perennial wetland grass that forms remarkably dense stands and outcompetes native plants. Its distinctive, fluffy seedheads are easy to spot in moist habitats and along roadsides.

Pollinators in Your Garden

Birds, bees, wasps, butterflies, moths, flies, bats and other species act as pollinators. They are responsible for fertilization in many plants, which secures the growth of fruit and seeds. When pollination is diminished, the result is less food for wildlife and humans. Pollinators have been on the decline due to loss of habitat, disease, overuse of herbicides and pesticides, and other causes.

As Albert Einstein said, “No more pollination, no more plants, no more animals, no more humans.”



Bees are very effective pollinators. Flowers attract and reward them for their pollination service. Bees gather two kinds of food from flowers: sugar-rich nectar to fuel their flight, and protein-rich pollen, or bee bread, to feed their young brood.



Hummingbirds

Specializing in nectar feeding, hummingbirds play an important role in pollination. These colorful, migratory birds serve as a link between plant populations by visiting flowers and moving pollen over great distances.



Pollen Wasp

Don't be frightened if you see this wasp, it doesn't eat insects or bite humans, but seeks out flowers for pollen. With a yellow-jacket look-a-like appearance, pollen wasps can be identified by their clubbed antennae.



Monarch Butterfly

While feeding on nectar, monarchs and other butterflies pollinate a variety of flowers. Monarchs depend on two kinds of food sources: as adults they require floral nectar, and as caterpillars they use milkweed leaves as their exclusive source of food. Butterflies are an important food for birds.



Hummingbird Clearwing Moth drinking nectar from Wild Bergamot

Go Native Near Water Resources



A buffer corridor of native plants can beautify your backyard with a variety of colorful wildflowers. It supports diverse wildlife habitat, while creating a natural screen.

Anyone who lives close to a pond, lake, stream, or wetland knows that water quality matters. Sediment, and nutrients such as nitrogen and phosphorus, are threats to the quality of the lakes and rivers that we and other life depend on.

A buffer zone of native woody and herbaceous plants along the shoreline helps to protect water quality by allowing runoff to soak in rather than enter the water source. It creates a natural separation between developed land and an adjacent lake or stream, while adding beauty and privacy.



A rain garden is a plant bed that collects rain runoff and holds water for a short time while it absorbs excess water into the soil. With a mixture of native plants, including grasses and flowers, the soil is held in place and an attractive focal point adds interest to the backyard.



As part of its restoration project on the Salmon Kill stream, Trout Unlimited is planting native shrubs and trees. The goal is to provide shade to cool summer water temperatures, cover to protect the young from predators, and organic material as food for aquatic insects, a trout's preferred dinner. The trees and shrubs are native to the Salmon Kill watershed and better adapted to local weather patterns and soil conditions.



Cattails attract dragonflies and birds, like this red-winged blackbird, that eat insects and nest in wetland areas.



A planted buffer helps reduce soil erosion and filters pollutants in runoff. It provides food and cover for insects, birds and small animals.



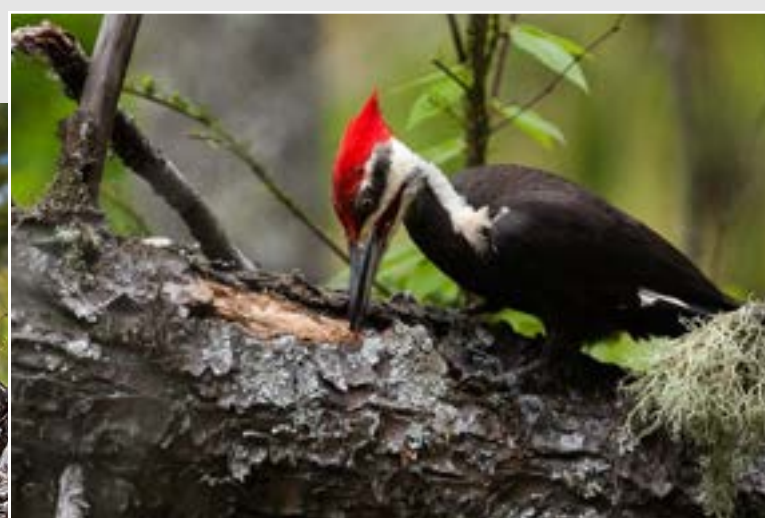
Native Trees Provide Food and Shelter



Jays, turkeys, grouse and other birds rely on nuts.



Cavities in oaks, hickories, beech and other species supply nesting sites and safe places for many birds, such as chickadees, bluebirds, and owls, as well as for small mammals.



Piliated Woodpecker



Titmouse eating beechnut



American Beech

Trees are an essential source of food for many wildlife species, particularly in fall and winter. Some productive nut trees are American beech, black walnut, butternut and hazelnut. Acorns from oaks fill the bellies of raccoons, turkeys, mice, black bear and squirrels among others. Birches produce seeds and flower buds that are important for songbirds, small mammals, grouse and turkeys. Nuts are long lasting and easy to hide, and uneaten caches often spring up as new trees and bushes.

Native nut trees display natural defenses against insects while providing high-calorie food.

In addition, trees with exfoliating bark provide crevices where insects can hide, creating a source of food for woodpeckers.



Hickory



By letting downed trees remain on your property, you start a life cycle fueled by decomposing wood. Plants, fungi and animals rely on these fallen trees as food sources and places to shelter. Decomposing logs enrich the soil and provide sites for tree saplings and other plants to take root.



Squirrel with pine cone

Go Native with Meadows and Grasses

Do You Really Need All of Your Lawn?

Lawns are useful as a site for some social activities, but they also have many drawbacks in our environment. Lawns are high maintenance, water-guzzling, finicky and expensive to keep neat, weed-free and green. They are often treated with expensive insecticides, fertilizers and herbicides. Perhaps the solution is to reduce the size of our lawn and transform some of it to a meadow of native warm season grasses and wildflowers.



Reduce the size of lawns and replace with a variety of native plants.



Meadows with native grasses and wildflowers make a diverse and beautiful habitat.

A landscape of native grasses and wildflowers provides a myriad of ecological benefits with very little maintenance. After the plants are established, watering is virtually unnecessary and mowing is reduced to once per year, typically in the fall.

Meadows provide year-long food resources and shelter for small mammals, butterflies and other insects. Meadows provide cover for nesting, brood-rearing, and roosting song and game birds.



Blue-eyed Grass

Hummingbirds, butterflies and insects that feast on flower nectar and serve as pollinators are attracted to wildflowers.

Native meadows have other benefits too. The root system within a meadow slows down storm water, allowing it to seep into the ground. Fertilizers and insecticides are not needed in meadows, cutting down on excess nutrients like nitrogen and phosphorous that enter our ecosystem.



Indian Grass



Little Bluestem

Meadows constantly change throughout the seasons, offering something new to discover each day. Rather than a desolate lawn, this oasis becomes a bustling community of wildlife which can be enjoyed by any curious observer.