

SPECIALTY GARDENS

Introduction

Birds and butterflies provide an extra layer of animation to your garden and enhance its beauty. If the gardener provides suitable food, water, and protective cover from predators, the resident birds in the area will consume many insect pests. In addition to this benefit, they also reward us with color, song, and entertaining bird watching in the garden environment. Similarly butterflies are attracted to certain plants and add a delightful dimension to the garden.

Getting Ready to Welcome Birds

Walk around the school neighborhood to identify the birds that are common to the area. A bird guide can be useful for identification.

Determine the feeding habits of the birds you wish to attract. Most birds are not specific as to the type of food they eat. Eating habits may vary from summer to winter. Summer insect eaters are likely to eat weed seeds in the winter. Even seed-eaters and hummingbirds catch insects to feed their nestlings.



Hummingbird

Photo courtesy of Douglas Aguillard

Specialty Gardens

Common Birds

Hummingbird
House Finch
House Sparrow
Mourning Dove
Brown Towhee
Mockingbird
Scrub Jay
Robin
Bushtit
Black Phoebe
Hooded Oriole
Lesser Goldfinch

Food Preferences

nectar, insects
weed seeds
insects, weed seeds
seeds
seeds, insects
insects, fruit
nuts, fruit, insects
earthworms, insects, fruit
insects
insects
insects, fruit
seeds

Protective Cover

Without a doubt, a safe environment is most important for birds' survival and ultimately for your garden's success.

Plants for cover can include trees and shrubs of various kinds. Choose varieties that will also provide for secluded nesting, roosting, and food. Fruit trees, shrubs, vines with seeds or berries, and plants that attract insects will determine the species of birds attracted to your garden.



Hooded Oriole

Photo courtesy of Douglas Aguillard

Food

Some suggested plants for fruit, seeds, insects, or nectar include mulberry (not fruitless) and pomegranate trees, berry vines, lantana, pyracantha, sunflower, honeysuckle, and grasses. Click this link <http://www.cnpsd.org> to go to The California Native Plant Society for lists of natives that attract birds.

Water

A birdbath will be a popular daily gathering place for drinking and bathing. Make sure it is near protective cover for birds, but not where cats may hide and pounce on birds while visiting the bath. Most suitable is a simple, shallow container, 18 to 24 inches in diameter and 2 _ inches deep on a pedestal 2 to 3 feet high. Materials for containers include plastic, ceramic, or concrete, but metal should be avoided as the water could become too hot. The birdbath needs to be kept clean and supplied with fresh water often. More success will be achieved if the water is moving; even a slow drip creating a small ripple will draw birds in. This will also help prevent mosquitoes from breeding in your birdbath.

Feeders

Using feeders is a personal decision for each gardener to make. Keep in mind that bird feeders may attract 'nuisance birds' such as starlings and pigeons that are not welcome in the garden. To provide a safe and healthy feeder, be sure to keep it and the area around it clean. Naturalists believe planting hummingbird plants is better for hummingbirds than providing them with sugar water in feeders. Deep throated flowers such as fuchsias, salvias, penstemons, and bottlebush will bring hummers to your garden.

If you do choose to supplement the nectar they obtain from flowers, it is important to take steps to insure their health. Dissolve one part white sugar (sucrose) in four parts warm water. If it is to be kept, this solution should be boiled first and then it may be refrigerated for several weeks if necessary. Using other sweeteners including honey, larger proportions of sugar, or red food coloring could cause harm to birds. The feeders need to be changed about every three days and cleaned before refilling.

The distribution of some species of birds will vary from neighborhood to neighborhood. Birds select their individual territories and may be reluctant to seek or be attracted to other sites. Patience may be required in attracting birds to your garden site.

Butterfly Gardening

Butterflies will visit our gardens if they can find nectar-producing flowers there. By supplying their special environmental needs for both the adult butterfly and the larval or caterpillar stages we can hope to be rewarded with opportunities to observe the fascinating four stages of the butterfly's life cycle: egg, larva (caterpillar), pupa (chrysalis), and adult. This can provide exciting hands-on natural science experiences for kids in their own gardens.

Explore and Discover

How do butterflies sip nectar?

Can they taste? How?

Look at the coiled tongue and scales on the wings with a magnifier.

What happens if the scales are rubbed off?

Can butterflies and caterpillars hear?

Can a caterpillar bite you?

Where do butterflies go at night or when it rains?

Watch a butterfly emerge from its chrysalis.

The butterfly season in Southern California is normally February to November, but can be affected by weather conditions. Some species can be seen year-round. Most are active on sunny, windless days when the temperature is between 65 and 95 degrees Fahrenheit.



Gulf Fritillary

Photo courtesy of Douglas Aquillard

Prepare Lunch for the Munchers

A butterfly garden can be created by using a small area planted with a few flowering plants that are known to attract a variety of species of butterflies which are common in your neighborhood. Make a list of the butterflies you see and the flowers they are visiting.

Favorite Flowers of Many Butterflies

Lantana shrubs

Buddleia davidii

Sunflowers

Lavender

Cape Plumbago

Milkweed (Asclepias species)

Yarrow

Red Valerian

Glossy Abelia

Pentas

Sage (Salvia species)

Bird of Paradise



Tiger Swallowtail

Photo courtesy of Douglas Aguilard

The flower colors that butterflies seem to prefer are yellow, orange, lavender, and white. In addition to bees, wasps, and other insects that feed on nectar and pollen, butterflies (and moths) are important pollinators.

Each year the numbers and variety of nectar plants in your garden can be increased. Try adding a few caterpillar food plants (host plants) such as dill or wild fennel for the anise swallowtail, mustard or cabbage for the cabbage butterfly, and passion vine for the gulf fritillary. While most adult butterflies feed on nectar from a variety of flowers, caterpillars have different requirements. Some species of caterpillars will munch happily on leaves of several different plants, some will accept only one family of plants, and others will feed on only one genus or species. Native plants attract many species of butterflies. Click this link <http://www.cnpsd.org> to go to The California Native Plant Society for lists of natives that attract butterflies.

Specialty Gardens

Common Butterflies

Anise Swallowtail
Tiger Swallowtail
Giant Swallowtail
Monarch
Gulf Fritillary
Mourning Cloak
Painted Lady
Buckeye
Sulphurs
Cabbage
Gray Hairstreak
Skippers

Host Plants

Fennel, Dill, Parsley
Willow, Sycamore
Citrus
Milkweed
Passion Vine
Willow, Elm
Mallow, Hollyhock, Lupine
Plantain, Snapdragon
Cassia
Mustard family
Mallow, Hibiscus
Grasses



Monarch Butterfly

Photo courtesy of Wildscaping

Nectar plants and host plants can be planted in the same garden with vegetables. Very few butterfly caterpillars cause significant damage to plants in our gardens. However, one that can be a pest on vegetables in the cabbage family (cabbage, broccoli, cauliflower) is the little green larva of the cabbage butterfly. Solution: just pick them off and invite birds to lunch on them!

Caterpillars of many butterflies and some moths (e.g., woollybears) often leave host plants to hide or pupate in brush or woodpiles, and birds will feed on the insects and spiders living there. A “lazy gardener” approach allowing plants to develop seeds and permitting leaf litter, some weeds, and piles of brush, wood and rocks, is recommended for attracting both birds and butterflies and contributing to their survival. It is not necessary to keep your garden completely neat and tidy.

Specialty Gardens

In the children's book, *Charlotte's Web* by E.B. White, Charlotte the spider says, "Life is always better when you're waiting for something to grow or something to hatch." While you're waiting for the plants to grow and the baby birds and caterpillars to hatch, sit quietly among the flowers; for as the saying goes, "if a butterfly lands on you, good luck will be yours for a year".

For many of us, birds, butterflies, and other animals that inhabit our gardens and yards represent one of our few remaining links with the natural world. Encourage, protect, and ENJOY them!

Bird and Butterfly Resources

Butterfly Gardening: Creating Summer Magic in Your Garden

Xerces Society & Smithsonian Institute

ISBN: 0871569752

Stokes Butterfly Book: Complete Guide to Butterfly Gardening Identification and Behavior

Donald & Lillian Stokes, Ernest Williams

ISBN: 0316817805

Bird and Butterfly Garden at Buena Creek Gardens

http://www.signonsandiego.com/uniontrib/20050612/news_mz1hs12buena.html

CHIRP for Garden Wildlife

<http://www.chirp.org/sage-song/inthenews98.htm>

San Diego Audubon Society

<http://www.sandiegoaudubon.org/>

San Diego Natural History Museum

<http://www.sdnhm.org/>

The Birds, Butterflies, Herps, & Dragonflies of San Diego County

<http://sdbirds.basiclink.com/>

Wild Birds Center

<http://www.wildbirdcenter.com/stores/enc>

Wildscaping

<http://wildscaping.com/>

Other Specialty Gardens

In addition to Bird and Butterfly Gardens, here are a few other suggestions:

Herb Garden

Herb gardens are very popular in schools. The beds are planted with an assortment of culinary and fragrant herbs. You may want to devote extra space to specialize in many varieties of one herb such as basil. Once established, herbs require very little maintenance other than watering and weeding. Almost all herbs grow in the San Diego area and most can be started with transplants, cuttings or seeds. Many seed companies have special assortments of herb seeds. Perennial herb plants will last for many years. A large container such as a half-barrel makes an ideal herb garden.

Pizza Garden

Most children love pizza! Why not have a small section of the garden for plants that are part of a pizza recipe: tomatoes, onions, garlic, oregano, basil and peppers. These warm season crops can be planted from mid-spring to early summer. Lay out a six-foot diameter, or larger, round bed and divide it into six or more pie shaped “slices”. Plant each “slice” with a different pizza ingredient. Use several different kinds of tomato and pepper plants to make more slices and add variety. Outline the borders of the “slices” with border plants such as alyssum or dwarf marigold.

Square Foot Garden

Lay out an area and divide it with string into one-foot square sections. Each individual student may plant a square with a different color of low growing plants such as begonia, dwarf marigold, flowering kale, primrose, portulaca, pansy, etc. A border of any low growing plant will finish the edges. [Click here to go to School Garden References for a book on Square Foot Gardening.](#)



Example of a Square Foot Garden in progress

Succulent Garden

A succulent is any plant that stores water in its leaves, stems or roots to withstand drought conditions. Most succulents come from desert or semi-desert areas. This makes the San Diego area an ideal place to have a special garden for succulent plants. There are a great variety of succulents. Most are easy to grow and require very little attention once established. They may be planted in decorative containers and used as accent plants at various locations around the school. Students can easily propagate succulents from cuttings and sell them at plant sales as a means of raising funds to support the garden. Oddly shaped succulents often attract curious students. Be careful to research any possible harmful effects before planting just any succulent in your school garden.

Caution - A cactus plant is a succulent. Because of their spines and “special handling” requirements, spiny cacti are not recommended for school gardens.

Native Plant Garden

For centuries native plants have provided Native Americans with food, medicine, dyes, basketry, tools, construction materials, and materials for rituals. Therefore, a garden of native plants can be an excellent way to integrate it with history, art, creative writing, cuisine, conservation, and experimentation. Many native plants attract birds and butterflies and therefore, may provide areas for wildlife study on the school grounds.

The drought-tolerant character of the chaparral and coastal sage plants make them popular in school gardens. Once established, they do not require much care or irrigation. Because of their extensive root systems, they do better in landscape plantings where their roots can grow and develop naturally rather than in the confines of a raised bed. Some schools use selected varieties in landscaped beds around the school property and parking lot dividers. Once planted, each specific variety should have a permanent weather resistant marker for easy identification by students.

Members of the local California Native Plant Society may be willing to provide advice, planting instructions and assistance in the selection of varieties for the school’s native plant garden. A helpful reference is Southern California Native Plants for School Gardens by Betsey Landis. Click this link <http://www.cnpssd.org> to go to The California Native Plant Society for additional publications and information.

A garden with a specific focus can increase student interest in the school garden program. Imagination is the only limit to the numerous topics that can become the subject of a garden. Specialty gardens have included color wheels, a focus on one or more storybooks (e.g., *Peter Rabbit*), flag designs, geometric layouts, artistic designs, and gardens with plants from a specific continent or country.