



# Getting Started in Butterfly Gardening<sup>1</sup>

---

Richard Sprenkel<sup>2</sup>

## Introduction

The popularity of butterfly gardening is evident by the numerous books, extension publications, web sites, and newspaper articles on the subject. On-line extension publications such as “Butterfly Gardening in Florida” (see Source of Materials and Information section at the end of this publication for the URL) provide an excellent review of the life history of butterflies and have lists of nectar plants and larval food plants for the 100 or so species of butterflies found in Florida. For someone new to butterfly gardening or someone with limited time or space to devote to the hobby, publications having extensive coverage of the subject can be overwhelming. This publication was developed for individuals who are just getting started in butterfly gardening or who want to pursue the hobby with a good chance of success.

benefit from having a windbreak nearby for those days with gusty winds. The same windbreak can provide shade on those very hot days in north Florida. If the windbreak includes shrubs, the butterflies will also use the plants as a roosting area at night.

## Soil

Once a sunny location is selected and before planting, take a soil sample. Have a complete soil test run by the soils testing lab in your state. Apply lime and fertilizer according to the recommendations from the soil test. When taking the soil sample note the presence of excessive roots from nearby trees or undesirable fill (excessive sand, bricks, concrete blocks or metal from construction). Keep in mind that once established it will be difficult to improve the soil and sand or organic mater in the butterfly garden, particularly if perennial plants are involved.

## Establishing the Garden

### Sun

Select a site for your butterfly garden that will recieve sun for most of the day. This is for the benefit of both the butterfly and the host plants. Although full sun is desirable for the garden, butterflies will

### Water

The garden should be close enough to a water supply so that the plants in the garden can be watered if necessary. The artificial puddles described in the next section can also be freshened and the area cooled down in the afternoon with a light watering.

- 
1. This document is ENY-722, one of a series of Entomology and Nematology Department, Florida Cooperative Extension Services, Institute of Food and Agricultural Sciences, University of Florida. Publication Date: 02/05. Please visit the EDIS website at <http://edis.ifas.ufl.edu>.
  2. Richard K. Sprenkel, professor, Extension Specialist, Pest Management, North Florida Research and Education Center-Quincy, Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, FL 32611.

The Institute of Food and Agricultural Sciences (IFAS) is an Equal Opportunity Institution authorized to provide research, educational information and other services only to individuals and institutions that function with non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, marital status, national origin, political opinions or affiliations. U.S. Department of Agriculture, Cooperative Extension Service, University of Florida, IFAS, Florida A. & M. University Cooperative Extension Program, and Boards of County Commissioners Cooperating. Larry Arrington, Dean

If feasible, consider installing a semi permanent watering system. A system consisting of 3/4" underground polyethylene tubing with stake-mounted micro sprinklers is relatively inexpensive.

A system of this type is easy to install and operate and can be enlarged as necessary.

### Puddles

To round-out the butterfly garden, consider adding an artificial puddle or two. Several species of butterflies are attracted to free-standing puddles. They not only benefit from a drink but also utilize salts and breakdown products of decaying vegetation which is present in most puddles.

To keep your puddles from becoming a source of mosquitoes, bury a shallow potted plant saucer to its rim in an area receiving full sun in the butterfly garden. Fill the saucer with coarse pine bark or stones and fill to overflowing with water. The butterflies are able to drink from the cracks between the pine bark pieces or the stones while the mosquito larvae have a difficult time becoming established. Occasionally adding a small piece of over-ripe fruit, some stale beer, or a tablespoonful of composted cow manure or leaf compost to the puddle will provide the salts and amino acids that the butterflies need.

### Fertility

To keep the plants in your butterfly garden productive scatter a slow release fertilizer 2-3 times during the summer. Do not over fertilize. Excessive nitrogen may reduce flowering.

## The Butterfly

Butterflies undergo a process of development called metamorphosis. This is a term indicating that the butterfly has four distinct stages in its life cycle: egg, caterpillar, pupa (also called chrysalis) and adult. In butterfly gardening, the two stages that you must accommodate are the caterpillar and adult. The adults require nectar plants for energy and moisture. The caterpillar stage requires a host plant on which it can feed and develop.

Although they may have their preferences, many butterflies will visit several species of nectar plants. If

possible, include several kinds of nectar plants to provide a range of flower color, shape and size. Keep in mind that the butterflies will need a supply of nectar throughout the summer and into the fall. Therefore, plants that bloom over an extended period of time or a series of plants that bloom in sequence through the summer are needed. Some of the nectar plants are: mexican milkweed (*Asclepias curassavica*), compact cultivars of weeping lantana (*Lantana montevidensis*), butterfly bush (*Buddleia davidi*), Indian blanket (*Gaillardia pulchella*), and Tropical sage (*Salvia coccinea*)

Female butterflies will select a plant using a combination of sight and smell for egg laying. This plant will be the food source for the caterpillar stage. For many species of butterflies, caterpillars will survive on only a few or in extreme cases only one species of host plant. Therefore, to increase the probability that you will have caterpillars to raise, you should select caterpillar host plants for your garden for the more common butterflies in north Florida. These would include the Gulf fritillary (passion vine, *Passiflora incarnata*), monarch butterfly (Mexican milkweed, *Asclepias curassavica*), buckeye (snap dragon, *Antirrhinum* spp), black swallowtail (fennel, *Foeniculum vulgare*; parsley, *Petroselinum crispum*; and dill, *Anethum graveolens*) and cloudless sulfur (wild senna, *Cassia* spp).

When planting for either the adults or the larvae plant a grouping of each species. For the adult seeking nectar plants, a mass of flowers will provide greater stimulation. A grouping of larval food plants will enable larvae to move to fresh foliage once they have consumed all of the leaves in an area. As a rule of thumb, a larva will consume its body weight in host plant material every two days.

## Avoiding Problems in the Butterfly Garden

The attraction of butterflies to the flowering plant in your garden will go a long way in rewarding your efforts. However, predation by birds, spiders, frogs, dragonflies, assassin bugs and other insects may reduce the number of butterflies in your garden. Many species of butterflies have chemicals in their

bodies that make them an undesirable as a food source for birds so predation is kept to a minimum.

Although there are many species of insect predators that will feed on butterfly eggs and small larvae, most are not abundant enough to substantially affect the butterfly population. The one exception is the red imported fire ant. If you try to establish your butterfly garden in the vicinity of an active fire ant mound, there is a risk of losing large numbers of eggs and small larvae to predation. To avoid this problem, eliminate fire ant mounds in the vicinity of your butterfly garden before planting using a registered insecticide having short residual activity or an insect growth regulator such as Amdro that is specific to the fire ant. Once your garden is established avoid using conventional insecticides (poisons) that can harm butterfly guests.

## Sources of Materials and Information

### Websites for Materials and Information

#### *Amazing Butterflies.*

<http://www.amazingbutterflystore.com/> - Free milkweed seeds (for donation), milkweed plants, live butterflies, butterfly books, and butterfly garden products.

#### *Butterfly Encounters.*

<http://www.butterflyencounters.com/> - Packets of milkweed seed.

#### *Butterfly Gardening in Florida.*

<http://edis.ifas.ufl.edu/UW057> - An extensive list of Florida butterflies, their preferred nectar plants and larval food plants.

#### *Florida Butterfly Gardening.*

<http://www.afn.org/%7Eafn10853/butterfly.html> - General information on Butterfly Gardening in Florida.

#### *Missouri Wildflower Nursery.*

<http://www.mowildflowers.net/> - Passion vine plants.

#### *North America Butterfly Association.*

<http://www.naba.org/> - General information for the butterfly enthusiast plus an online butterfly store.

#### *Pine Ridge Gardens.*

<http://www.pineridgegardens.com/> - Has passion vine (*Passiflora incarnata*) seeds. Seeds are frequently available through eBay as well.

#### *Rose Franklin's Perennials.*

<http://www.butterflybushes.com/index.html> - Milkweed plants.

### Books

#### *Butterflies Through Binoculars: Florida* by

Jeffrey Glassberg, Marc C. Minno and John V. Calhoun, Oxford University Press, 198 Madison Ave. New York, NY 10016.

#### *Florida Butterflies* by Eugene J. Geberg and Ross

H. Arnett, Jr. Natural Science Publication, Inc Baltimore, MD.

*Florida Butterfly Gardening: A Complete Guide to Attracting, Identifying, and Enjoying Butterflies of the Lower South* by Marc C. Minno, Maria Minno, Diane Pierce (Illustrator) University Press of Florida, 15 NW 15th Street, Gainesville, FL 32603, (352)392-1351.

*Florida's Best Native Landscape Plants: 200 Readily Available Species for Homeowners and Professionals* by Gil Nelson. University Press of Florida. 15 NW 15th Street, Gainesville, FL 32603.

#### *Florida's Fabulous Butterflies & Moths*

(*Florida's Fabulous Series Vol 2*). by Thomas C. Emmel, Brian Kenney (editor) World Publications, Tampa, FL.

*Your Florida Guide to Butterfly Gardening: A Guide for the Deep South* by Jaret C. Daniels, University Press of Florida, 15 NW 15th Street, Gainesville, FL 32603.