GARDENING FOR BUTTERFLIES

ANITA S. NEAL* AND SUSAN BRODEUR
University of Florida, IFAS
St. Lucie County Cooperative Extension
8400 Pico Road, Suite 101
Fort Pierce, FL 34945

Additional index words. junior master gardeners, host plants, nectar plants, caterpillars

Abstract. We attend workshops, planted weeds in our yard; endured our plants being ravaged by hungry, fat little critters, all for the sake of catching a glimpse of a fluttering beauty. These flying, flittering flowers with the sun shining on their wings create a warm spot in many a heart. Their beauty is enough to stop a body dead in their tracks. The Spanish call them mariposa, and we know them as butterflies. Gardening to attract butterflies starts with a plan. To develop a butterfly demonstration garden on the St. Lucie County Extension grounds, first a group of Jr. Master Gardeners identified the needs of a butterfly, the types that could be found in the butterfly zones of Florida and which plants would be nectar or larval food sources. The gardeners narrowed the list to the butterflies and plants that would be appropriate for this area. The group was taught how to design a garden, they visited a butterfly garden and created individual landscape plans for the garden. A local landscape architect captured all of the ideas into a final design. The gardeners have designed an educational kiosk to explain the butterfly life cycle and the major elements that one must consider in developing a garden for butterflies. The Jr. Master Gardeners are very proud of the garden and its designation is an educational element of the St. Lucie County Extension site.

Flying by day, the four-winged scale-covered insect we know as the butterfly causes many an admirer to seek just one more glimpse. Their beauty comes in so many different colors and floats across the landscape stopping to seem resting on a branch, only to find out through a closer examination that some eggs were just deposited. The cycle begins egg to larvae (or as we know it, the hungry caterpillar), which after gorging itself, rests in a chrysalis undergoing a transformation into a beautiful butterfly. The true enjoyment one receives from observing these butterflies floating through a garden has created a desire to entice them into our landscape.

Materials and Methods

Each Junior Master Gardener was supplied with the Butterflies workbook and the University of Florida fact sheet Butterfly Gardening in Florida (Quick et al., 2001); a site plan of the area to become the butterfly garden; pencils; and trash/tracing paper. There were many books and on-line (Internet) resources available for their use; some of them were Florida’s Fabulous Butterflies and Moths (Emmel and Kenney, 1997), Gardening for Florida’s Butterflies (Trass, 1999), Florida Guide to Butterfly Gardening: A Guide for the Deep South (Daniels, 2000), and Native Butterfly Gardening (Crowley). The Junior Master Gardeners were also supplied tape measures, engineering drafting scales, yellow sticky notes, clipboards, and markers.

The Gardeners first reviewed the butterfly workbook and the Butterfly Gardening in Florida fact sheet and determined the needs of a butterfly, the types that could be found in this area, and which plants would attract them. They made a chart to match up the butterfly with the larval plants needed to attract and keep them in the garden (Table 1). The Gardeners next measured the area to be designed and noted existing structures to remain (Fig. 1). The area had all plant material removed. The Gardeners also took a soil sample to determine the pH. In the third week, the agent met with the Junior Master Gardeners to discuss design principles and ideas. The agent presented many different design elements, like pergolas, arbors, sculptures, water features and benches. The group was told to let their imaginations and design ideas go wild, and for them not to be concerned about money. The agent showed the gardeners how to write their thoughts and ideas down on sticky notes and move them around the plan until they were comfortable with their selections (Fig. 2). At week four the group met and discussed each others plans and determined which ideas they would like to incorporate into the final plan (Fig. 3). The landscape architect took the designs and the group’s shared ideas and incorporated them into a final plan (Fig. 4).

The planting started in August, 2004 and was interrupted by Hurricane Jeanne and then again by Hurricane Frances. Many plants had to be re-planted, the lattice trellises for the vines were destroyed and three Obelisks were chosen to support the vines. A wooden swing was chosen instead of a bench and two sunken pools were installed with floating plant materials.

Results and Discussion

The Junior Master Gardener class that participated with the planting was composed of approximately 18-20 children ranging in age from five to thirteen years of age. The participants are members of a home schooled group working with Extension. The children generated many good ideas and focused on the needs of the butterflies for the area, including matching the appropriate nectar and larval plants to each native butterfly. They determined the pH was 7.6 and decided it would be acceptable to most plant material. They wanted a river-like area to run through the garden, river rocks were utilized to look like a river bed and create a meandering pathway through the garden. The rocks were placed on weed barrier cloth to keep the rocks from becoming buried into the soil. Plastic edging holds the rock path in place.

The gardeners wanted an entrance at two points into the garden, wooden arbors were placed at each entrance after the storms had passed and the garden was being reconstructed. The children also thought about visitors’ safety and suggested the need for a fence to keep children safe from the adjoining parking lot. They liked the idea of a white picket fence, PVC white pickets were assembled and put into place, only to be re-installed after the hurricanes.

An educational kiosk is being created by the new Junior Master Gardener class. The first class wanted the kiosk to

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*Corresponding author; e-mail: asn@ifas.ufl.edu
Table 1. Butterflies and host plants.

<table>
<thead>
<tr>
<th>BUTTERFLY</th>
<th>HOST PLANT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monarch</td>
<td>Scarlet Milkweed <em>Asclepias curassavica</em></td>
</tr>
<tr>
<td>Gulf Fritillary</td>
<td>Passion Vines <em>Passiflora incarnata</em></td>
</tr>
<tr>
<td><em>Agraulis vanillae</em></td>
<td></td>
</tr>
<tr>
<td>White Peacock</td>
<td>Matchhead <em>Phyla nodiflora</em></td>
</tr>
<tr>
<td><em>Anartia jatrophae</em></td>
<td></td>
</tr>
<tr>
<td>Zebra Longwing</td>
<td>Passion Vines <em>Passiflora incarnate</em></td>
</tr>
<tr>
<td>Cloudless Sulphur</td>
<td>Cassia <em>Senna mexicana chapmanii</em></td>
</tr>
<tr>
<td><em>Phoebis sennae</em></td>
<td></td>
</tr>
<tr>
<td>Giant Swallowtail</td>
<td>Wild Lime <em>Zanthoxylum fagara</em></td>
</tr>
<tr>
<td><em>Papilio cresphontes</em></td>
<td></td>
</tr>
<tr>
<td>Spicebush Swallowtail</td>
<td>Red Bay <em>Persea borbonia</em></td>
</tr>
<tr>
<td><em>Papilio troilus</em></td>
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<tr>
<td>Great Southern White</td>
<td>Pepper Grass <em>Lepidium virginicum</em></td>
</tr>
<tr>
<td></td>
<td>Southern Sea Rocket <em>Cakile lanceolata</em></td>
</tr>
<tr>
<td>Malachite</td>
<td>Green Shrimp Plant <em>Blechnum brownie</em></td>
</tr>
<tr>
<td></td>
<td>Wild Petunia <em>Ruella caroliniensis</em></td>
</tr>
</tbody>
</table>
Fig. 1. Measuring the site.

Fig. 2. Design ideas.

Fig. 3. Comparing designs.
demonstrate the butterfly’s life cycle, egg?caterpillar?chrysa-
lis?butterfly. The new class would also like to add the hatching
box idea that belonged to the first Junior Master Gardener
group. They would also like to label each plant and create a
brochure that helps visitors understand which plant attracts
which butterfly.

The original gardening class often visits the Extension of-
face and these students take the time to walk through the but-
terfly garden. They are very pleased with their efforts and the
chance to see a few butterflies in their garden. This is an ex-
cellent example of the effect of early involvement with a child
and a project. They take ownership much more easily if they
are included in the first stages of a plan. Many of these stu-
dents have either added to an existing butterfly garden at
home, utilized some of the plants and ideas from the garden
or have, with the help of their parents, designed and planted
a garden to bring butterflies to their yard.

Literature Cited
terfly/butterfly.html
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Trass, P. 1999. Gardening for Florida’s Butterflies. Great Outdoors Publish-
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