Lesson 3: Make a Field Guide to a Monarch Habitat

Key Concepts:

- A field guide helps people identify organisms in a particular location.
- Plants often interact with a variety of different insects.

Skills:

- Observation
- Drawing
- Classifying
- Creating a book

Materials:

- Field guides for plants, flowers, wildflowers
- Books on butterfly gardening or list from *Butterfly Habitats and Gardening* in the Monarch Biology section
- *A Plant in a Butterfly Habitat* (student handout page)

Objective

In this lesson, students will create drawings of plants in a habitat to be included in a class field guide.

Background

This lesson works best if students can actually observe the habitat; if you can take your students to a butterfly garden or nearby park or field, this would be ideal. However, they can also look at pictures or describe habitats they have seen in the past. They will increase their powers of observation and record keeping, and continue to learn about interactions between organisms that coexist in a habitat.

Before doing this lesson, it would be useful to read the background information on *Butterfly Habitats and Gardening* in the Monarch Biology section of this curriculum. Lesson 1, *What is a Habitat?*, is a good introduction to this lesson, although they can be done independently.

Procedure

Note: If you have done lesson 1 (What is a habitat?), you will have already completed step 2.

1. Show students examples of field guides and discuss why they are useful.
2. If possible, visit a butterfly garden or other natural habitat in which you would be likely to find several organisms. If desired, you can bring field guides along to help you identify the plants that you observe. If you cannot visit a real habitat, you can use books and other materials.

Thistle

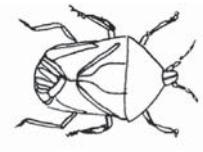
3. Have each student make a full-page drawing of one plant that they observe in the habitat. Encourage them to be as accurate as possible. Use field guides, seed catalogues, books on butterfly gardening or actual plants as guides. You could have each student do one or two pages and then put the pages together for a class book, or students could each make their own book.
4. Have each student fill in the information on the template for the plant they have drawn. They can use field guides or other sources, or

their own observations, for information. If desired, you may modify the template; for example, you can omit the "kind of plant" item if you do not wish to teach about annuals and perennials.

5. Visit the site as often as possible for students to observe their plant. If they see any insects or other creatures on the plant, they should list them. For example, if they see monarchs, bees, aphids, spiders, and milkweed beetles on milkweed plants, they would list these things under the heading: "Organisms observed on this plant." When they add to this list, they should write the date of their observation and a description of what the organism was doing.
6. Have students put their pages together so that plants with flowers of the same color are together, and then number the pages. Students should make an index for their field guide, listing the plants alphabetically and writing the page number for each of the plants. Have students make a cover for their field guide and staple or bind the pages together.
7. Optional: Take a field trip or a nature walk and have students use their guide to identify plants in nearby monarch habitats. Be sure to bring along a real field guide to use in cross referencing student drawings. Have students continue to observe and identify any butterflies or other organisms on these plants and add this information to their field guide pages.

Ladybug

Snout beetle



Stink bug

Milkweed

A Plant in a Butterfly Habitat

Plant name _____

Color of flowers, if present _____

Blooming Season _____

Kind of plant
(annual or perennial)_____

Height of plant _____

Organisms observed on this plant :

_____

_____

_____

_____

_____

Drawing and research done by _____