

## **Weeds and Wildflowers**

### **Fall activity**

**Activity:** Students learn names and descriptions of some of our native California wildflowers and learn how introduced plants, grazing and development have decimated our wildflower populations. Students will plant wildflower seeds.

**Goals:** To learn how invasive species (e.g. weeds) can alter an ecosystem; discuss various threats to California native plants and habitats.

**Supplies:** Tools, wildflower seeds premixed with potting soil; books and materials on wildflowers and weeds

### **How to proceed**

Look over the lesson plan and printed materials and talk about weeds vs. wildflowers with your group. Each class has been assigned a planting area (see email). Take your supply of seeds (seeds have been premixed with soil), trowels and hand forks to your planting area. Weed and loosen the soil surface. After soil is prepared, have each student sprinkle a handful (or less) of seeds. Have them pat the surface to allow for good seed/soil contact. This activity will not take very long so be prepared with other back-up activities—e.g. color in their worksheet; rake or sweep leaves, etc.

When done make sure to return all tools and lock the shed.

### **Background**

#### What is a weed?

A weed can be defined as any unwanted plant for a particular area. When we think of weeds, we typically think of plants that have vigorous growth or that can spread rapidly and invasively. A weed can be a pretty plant or an ugly plant. Some plants that we now consider weeds were actually brought to our area as decorative garden plants. Removed from their native habitats and factors that would normally control the growth of the plants, the introduced plants reproduced unchecked beyond garden borders.

#### What is a native plant?

A native plant would be any plant not introduced to an area by humans. Native plants would thus be part of a community of other plants and animals that had evolved together. Native plants can also be weeds!

#### A vast garden of wildflowers

The central valley of California used to be filled with wildflowers. John Muir describes "walking from one end of it to the other, a distance of more than 400 miles, your foot would press about a hundred flowers at each step." California wildflowers became known in English gardens as settlers sent back seed, but ironically, they were not prized in California as they were so bountiful in nature! In addition to their beauty, wildflowers were so plentiful they were also a practical resource. Native Americans would collect the

tiny seeds and roast and grind them to make an edible food called pinole. The plants were also used for dyes, medicine and soap.

Wildflower habitats have been lost to commercial agriculture, grazing and development, but a more insidious factor that has led to their decline is the spread of non-native grasses and weeds. These plants, introduced either accidentally or for use in grazing pastures, can out-compete the annual native wildflowers and inhibit their growth.

Our remaining wildflowers still put on a spectacular show in the spring, but are now typically found in areas that were unsuitable for development. One unusual habitat for wildflowers is the vernal pool habitat, temporary pools or ponds that dry up after the winter rains, and where interesting concentric patterns of wildflowers are found around the drying pool.

#### How to grow wildflowers in the garden

In the garden, native wildflower seed will not sprout just anywhere just because it is native! Seeds will not grow in weedy, overgrown areas and good soil preparation is required to get good germination.

Your seeds have been mixed 1:4 with fine topsoil. After you have thoroughly weeded and broken up the soil, broadcast the seed mixture over the planting area. Good seed/soil contact is important, so flatten down with your hands or step lightly on the surface. Seeds should receive water about 1x per week if we don't get any rain.