



MONARCH HABITAT

1. Learn
2. Provide nectar plants
3. Plant larval host plants/Places to raise young
4. Provide protection from the elements
5. Provide a water source
6. Eliminate pesticide use
7. Certify

1. LEARN

Each Spring and Fall, migrating monarch butterflies fly through Arizona, California, and Mexico. For these migrating monarchs, Arizona's multitude of climate zones, each offering diverse milkweed species and floral resources, fuel them on their migration journey. There are two populations of monarchs in the United States: Monarchs east of the Rocky Mountains, and Monarchs west of the Rocky Mountains. The eastern population's migration to overwintering sites in the high-elevation forests of central Mexico is a well documented and studied phenomenon. The much smaller western population's migratory pathway is lesser known. For many years, it was assumed that monarchs west of the Rocky Mountains overwintered along the Pacific coast. Now, through tagging efforts, we know that the vast majority of monarchs in the west migrate specifically to the California coast. Although most monarchs in Arizona overwinter in California, a small number of monarchs overwinter in the low deserts of Arizona each year, some breeding, others non-breeding. Very few head to overwintering sites in Mexico with the eastern population.

PLUMMETING POPULATIONS

Both populations have suffered immense population declines. The eastern monarch population, once in the hundreds of millions, has declined by 70% over the past three decades. Similarly, the smaller western population has declined by 95% since the 1980s.

Several factors have contributed to this decline, including the loss of breeding and overwintering sites, climate change, and widespread use of herbicides in croplands, pastures, and roadsides.

2. PROVIDE NECTAR PLANTS

- Select plants that will feed butterflies while also encouraging them to stick around and lay their eggs. Creating a new generation of butterflies is the ultimate goal.
- Plant a wide range of nectar and host plants with varying vegetation layers, shapes and bloom times. When planting, group same species together in large clumps. Butterflies are attracted to large patches of brightly colored flowers, such groupings will unify the look of your habitat while also lessening the distance nectaring butterflies need to travel.

NECTAR PLANTS FOR MONARCHS:

TREES

- Velvet mesquite (*Neltuma velutina*)
- Desert willow (*Chilopsis linearis*)
- Palo verde (*Parkinsonia* spp.)

SHRUBS

- Sweetbush (*Bebbia juncea*)
- Desert broom (*Baccharis sarothroides*)
- New Mexico thistle (*Cirsium neomexicanum*)
- Fragrant bee bush (*Aloysia gratissima*)
- Pink fairy duster (*Calliandra eriophylla*)

FORBS

- Chocolate flower (*Berlandiera lyrata*)
- Goodding's verbena (*Glandularia gooddingii*)
- Globemallow (*Sphaeralcea ambigua*)
- Tansyasters (*Machaeranthera* spp.)



Chocolate flower, Sue Carnahan



Fairy duster, Kim Matsushino



Goodding's verbena, Sue Carnahan





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3. PLANT LARVAL HOST PLANTS/PLACES TO RAISE YOUNG

PROVIDE LARVAL HOST PLANTS

Larval host plants provide a place for monarchs to lay their eggs and a food source for newly hatched caterpillars. Larval host plants are essential in creating a healthy habitat for caterpillars and butterflies as they are where caterpillars do the majority of their growing. Monarch caterpillars are highly specialized, meaning that they will only eat certain plants - milkweed.

THE BEST NATIVE MILKWEED FOR MONARCHS:

- Arizona milkweed (*Asclepias angustifolia*)
- Pineleaf milkweed (*Asclepias linaria*)
- Desert milkweed (*Asclepias subulata*)
- Butterflyweed (*Asclepias tuberosa*)

PROVIDE PLACES TO RAISE YOUNG

Caterpillar and moth pupae require separate places to pupate and overwinter and their times vary greatly among species.

Pupation typically occurs in tall grasses, bushes, trees, fence posts, piles of leaves or sticks, or on the side of the house. Some caterpillars will travel across yards from their host plant in search of a safe place to pupate; keeping untidy corners and piles of woody debris will give them a place to go.



4. PROVIDE PROTECTION FROM THE ELEMENTS

Monarchs, like most butterflies, need shelter from the wind. Planting shrubs and trees will create an environment where they can easily forage and explore your habitat while not being influenced by the wind. They also provide safe places for monarchs to roost at night and seek protection from predators. Butterflies are more likely to stay in your yard if it provides shelter.

5. PROVIDE A WATER SOURCE

A recent study by the Southwest Monarch Study indicates that migrating monarchs were primarily observed in larger densities near water, including cienegas, rivers and creeks, washes, roadside ditches and irrigated gardens (Morres et al. 2015). Especially during periods of low humidity, monarchs were found puddling in moist soils and shallow creeks. To provide water for butterflies, provide puddles of shallow water or make a puddler. A simple damp area of ground covered with sand/gravel is all you need to do.



6. ELIMINATE PESTICIDE USE

Plants treated with pesticides/herbicides carry those compounds into the whole plant- including its nectar and seeds. Butterflies feeding on treated plants can be lethal.

7. CERTIFY YOUR MONARCH-APPROVED HABITAT

Once you have completed your habitat, email habitat@tucsonaudubon.org to receive your certification sticker.

