1. **LEARN**

Explore the native butterfly and moth species in your area that you can attract to your garden. Align their larval host plant needs with appropriate native plant species. Prioritizing the most prevalent caterpillar species will enhance your chances of success.

2. **PLANT LARVAL HOST PLANTS**

Select a variety of native plants that serve as host plants for targeted caterpillar species. Native plants are well-suited to our local climate and provide a familiar food source for caterpillars. Look for plants that caterpillars commonly feed on, such as milkweed for monarch butterflies or dill and parsley for swallowtail butterflies.

Larval host plants play a crucial role in a butterfly and / or moth’s lifecycle as they provide a breeding ground for adults to lay their eggs, and serve as the primary growing area for newly hatched caterpillars. While some caterpillars are specialists that feed exclusively on specific plant species, others are generalists that consume a variety of plants. For instance, monarch caterpillars are highly specialized feeders as they solely feed on milkweed plants. Conversely, gray hairstreak caterpillars are considered generalists as they feed on a wide array of plant species from various plant families.

### BUTTERFLY LARVAL HOST PLANTS

- Desert hackberry (Celtis pallida)
  - Empress lila, Hackberry emperor, Tawny emperor, American snout
- Arizona rosewood (Vauquelinia californica)
  - Two-tailed swallowtail
- Globemallow (Sphaeralcea spp.)
  - Gray hairstreak, Northern white skipper, Laviana white skipper, Common streaky skipper, Small checkered skipper, Common checkered skipper, West coast lady, Painted lady
- Senna (Senna spp.)
  - Cloudless sulphur, Sleepy orange, Southern dogface, Mexican yellow, Boisduval’s yellow
- Passion flower (Passiflora spp.)
  - Gulf fritillary, Mexican fritillary, Variegated fritillary
- Bamboo muniy grass (Muhlenbergia dumosa)
  - Orange skipperling, Cestus skipper
- Sideoats grama grass (Bouteloua curtipendula)
  - Elissa roadside skipper, Sheep skipper, Oslar’s roadside skipper, Bronze roadside skipper
- Pink fairy duster (Callianandra eriophylla)
  - Ceraunus blue, Marine blue

### MOTH LARVAL HOST PLANTS

- Velvet mesquite (Neltuma velutina)
  - Hubbard’s small silkmoth, Tricolor buckmoth, Juno buckmoth, Owlet moths, Geometrid moth, Bagworm moths, Mesquite clearwing moth
- Catclaw acacia (Acacia greggii)
  - Hubbard’s small silkmoth, Tricolor buckmoth, Black witch moth, Owlet moths, Mesquite stinger flannel moth, Naval orange worm moth, Merry melipotis moth
- Superstition mallow (Abutilon palmeri)
  - Bird dropping moth, Owlet moth, Crambid seed moth
- Globemallow (Sphaeralcea spp)
  - Bird dropping moths, Mallow moth, Clearwing moth
- Wolfberry (Lycium spp.)
  - Mexican agapema silkmoth, Sphinx moth, Prominent moth, Crambid moth
- Arizona grape (Vitis arizonica)
  - Mourmful sphinx moth, Achemon sphinx moth, Vine sphinx moth, Typhon sphinx moth, Western grape-leaf skeletonizer, Forester moths

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1 When planting milkweed, be sure to plant in groups of three or more, all within one meter of each other. Planting a single milkweed does not provide enough forage for caterpillars to mature and they often are incapable of traveling more than one meter across the hot desert floor without drying out.
3. PROVIDE SAFE PLACES TO PUPATE

Caterpillars and moth pupae need distinct locations to pupate and spend the winter, with durations varying significantly depending on the species. Pupation usually takes place in tall grass, shrubs, trees, fence posts, leaf or stick piles, or the exterior of a building. Securing a safe pupation site is crucial, and some caterpillars may travel long distances from their host plant to find one. Maintaining untidy corners and piles of wood debris can offer them a safe haven.

4. PROVIDE NECTAR PLANTS FOR EMERGING BUTTERFLIES AND MOTHS

Select nectar-rich plants that will feed butterflies and moths while also encouraging them to stay and lay their eggs. Creating a new generation of butterflies is the ultimate goal.

5. ELIMINATE PESTICIDE USE

Plants treated with systemic insecticides carry those compounds throughout - including its foliage, nectar, and seeds. These insecticides aren’t designed to distinguish between “good” and “bad” insects and cause unintended consequences and disrupt our natural systems. Systemic insecticides efficiently eliminate all types of insects including beneficial pollinators. Eliminate the risk of damaging your ecosystem by using healthier, more sustainable options such as mosquito dunks and integrated pest management.

6. CERTIFY YOUR CATERPILLAR-APPROVED HABITAT

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

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1 See our Moth-Approved and Western Monarch Guides for nectar plants for moths and butterflies

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RESOURCES

Native plant lists for moth and butterfly larval host plants:

- https://desertsurvivors.org/plant-lists.html