

## Creating a Habitat Garden

*Community Nature Center of Prescott*

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A backyard habitat is not difficult or expensive to create or maintain. With an ever-changing palette of colors and textures, along with the watchable wildlife you will attract, this garden will be a fantastic landscape addition. It will bring beauty and joy to your yard.

Key to designing a Habitat Garden is including a diversity of plant species *and* layers of plant structure – designing for vegetation that grows from the ground (grasses and forbs) up to shrubs and trees. These key concepts combine to not only create beauty, but will successfully encourage a diversity of life on your property.

Another advantage to maintaining and creating natural diversity: the yard will have very few pests. Allowing natural predators such as spiders, garter snakes, gopher snakes, lizards, preying mantis, and native wasps will help maintain a natural, healthy balance.

It is also critical to minimize soil disturbance on your property. With little disturbance of the naturally occurring conditions, comes little problem with weeds. Where weeds do grow, do hand work to remove them and seed natives grasses or forbs in their place. Many native grasses and forbs are now also available in containers. If your soil has been disturbed, adding native grass and wildflower seed and a light layer of native chippings will help the area heal, and retain needed moisture for plant establishment.

Avoid the use of pesticides or herbicides of any kind. Pesticides remain in the tissues of insects and rodents, and can poison other members of your natural system unintentionally when these are ingested. Many of these chemicals also remain in your yard and soils and can contaminate you and spread unintentionally to other areas with rainfall.

Some other important considerations for your Habitat Garden:

- Include perennials with different flowering times (late winter to late fall). You will have a lovely array of native insects, and will have a great hummingbird population without maintaining feeders. If you want to add feeders, that is fine. Be sure to keep them very clean. Check with the Audubon Society or local birding stores for more details.
- Retain and plant a variety of natural grasses for seed sources and shelter. The flowering stalks with set seed should be left into fall for cover and food for birds. Cut dry grasses down after seeds have dropped and before the spring fire season. In summer you will not have to feed birdseed as often, since much seed is already present on the landscape!
- Do your research or buy plants from *knowledgeable* sources. Local environmental education organizations or Cooperative Extension are your best options. Many plants are called native that are not. **Why does it matter?** Native animals and native plants have adapted with each other to life in the southwest. In many cases our native animals will not tolerate a yard that has lost all the native plants, diversity and layers

of cover. You lose habitat you lose your wildlife. Quail, towhees, and other ground nesters must have cover at the ground level, birds like bushtits and titmice need cover as they move through in feeding flocks. The caterpillars of many butterflies and moths are very species specific. If you have that food source in your yard or nearby you will help maintain that population of insects.

- Retain, enhance or create boulder outcrops and rock walls. These act as shelter for reptiles and other small animals. In the Prescott area you can support a fantastic population of lizards including: Arizona Alligator Lizards, Striped Whiptails, Clark's Spiny Lizard, and Plateau Lizards. Collard Lizards may still be found in some areas.
- We like to maintain a lot of our natural leaf mulch and add other organics - native chippings can be added in a 1" layer. These help plants and also encourage a variety of life including the lizards and their prey. In coniferous zones, retain 1" of needles on top of the natural dark decomposing zone below the needles. This will hold moisture in your soil, and discourage erosion. Your trees and shrubs will be much healthier, and will not be as stressed in late spring and early summer.
- Fertilizers are not necessary in most cases when you use regional natives. They are well adapted to our soils.
- Keep water available for wildlife – this is critical. An irrigation emitter can very simply be secured in a large water dish. This not only provides a water source, but it helps keep wildlife from chewing into your irrigation system to *find* the water they can smell. Creating a small water feature with moving water in a small, recycled design is ideal and will attract a wide variety of birds. Designing for this in a shaded area reduces water loss to evaporation.
- Be aware of the *heavy* impact that domestic cats and dogs have on our native wildlife. If you have dogs or cats that attack birds and lizards, consider creating your habitat in a area away from your backyard. Cat yards are a great way to help protect wildlife as well. In any case, be sure to place water in areas that domestic cats or dogs cannot easily attack the life you are attracting.

**Plants we included in the CNC Habitat Garden design and why! These species were planted from containers or seed; some native shrubs and trees were already present in the garden areas.**

*Note on starred\* plants below: these plants are not currently in our Habitat Garden at the CNC, but they are recommended.*

### **Trees**

- Desert Willow (*Chilopsis linearis*). Hummingbirds, bumblebees and Two-Tailed Swallowtail butterflies visit the flowers.
- Alligator Juniper (*Juniperus deppeana*). The fleshy cones are a very important source of food for a wide variety of wildlife including coyotes, foxes, jays, and squirrels (bears, elk, and more in other areas). Juniper cones are often a survival food in very tough times for wildlife. Alligator Juniper is the host plant for the Juniper Hairstreak butterfly.

- Native Oaks (*Quercus turbinella*, *Q. Emoryi*, *Q. Arizonica*). Goldfinches, jays, nuthatches, and titmice, Bushtit, Red-naped Sapsucker, and Audubon Warbler visit for acorns; some for the sap. California Sister and Mournful Duskywing butterflies use oaks as host plants.

### **Shrubs**

- Apache Plume (*Fallugia paradoxa*). Honey Bees and a variety of native bees on flowers, lesser goldfinches on seeds. Flowers in late spring and early summer; flowers are followed by showy pink seed tails that remain on the shrub for some time.
- Mountain Mahogany (*Cercocarpus montanus*). The tiny flowers are very fragrant and attract a variety of bees; these shrubs are great to have near any patio or garden.
- Three-leaf sumac (*Rhus trilobata*). An early nectar source for insects, this plant produces bright red fruit for birds and other wildlife. Ripe fruits are sour but edible.
- Fernbush (*Chamaebatiaria millefolium*)\* Large showy cream-colored inflorescences and fern-like leaves make for an attractive specimen. Plants like well-drained soils and do well in rock walls and planters – which resembles their native habitat in the rocky cliffs above Sedona and other areas of central AZ. Two beautiful species of native wasp pollinators are commonly seen visiting the flowers.
- Rabbitbrush (*Ericameria nauseosa*)\* A vigorous drought tolerant plant; may create new seedlings; attracts a variety of butterflies. Does spread by seed.
- New Mexico Locust (*Robinia neomexicana*). Host for Silver-spotted Skipper. Fragrant, purple-pink legume flowers in clusters are produced during late spring.
- Autumn Sage and Texas Blue Sage (*Salvia greggii* and *S. farinacea*)\* Hummingbirds, hawkmoths, carpenter bees, large and small bee flies are attracted. Neither of these species is native here in the Central AZ Highlands, but they are excellent flowering plants for the landscape, and for wildlife.

Not currently in the garden, but these shrubs occur at the Nature Center and are also excellent to retain on your property if you have them:

- Manzanita (*Arctostaphylos pungens* or *A. pringlei*). Manzanitas are early nectar source for butterflies, hummingbirds, Manzanita Mason Bees, moths and others.
- Desert Ceanothus, Mountain Lilac (*Ceanothus greggii*). The fragrant, delicate cream-colored flowers attract bees and night flying pollinators.
- Wright Silk Tassel (*Garrya wrightii*). Wright Silk Tassel (*Garrya wrightii*). Plants are dioecious, meaning male and female reproductive parts occur on separate individuals. Watch for purple fruits on the female plants. Hermit Thrush and other birds feed on these dark fruits (especially in fall/winter).

### **Perennials**

It is important to consider flowering time when planning your perennial garden so that you will have blooms (and food sources) from spring through fall. This will help provide nectar throughout our warm season for birds and insects. Hummingbirds love red, tubular flowers, but they will also visit Columbine, Desert Willow and other plants, so a sequence of blooms is important for them. Remember that allowing caterpillars and other larval forms to feed on their “host” plants in your landscape will also assure that you have the adult form – butterflies and moths.

### Spring to early summer:

- Beard-tongue Penstemon (*Penstemon barbatus*). Hummingbirds love the red flowers
- Scented Penstemon (*Penstemon palmeri*). Large bodied bumblebees and carpenter bees are attracted to this broad open throat, very fragrant flower.
- Rocky Mountain Penstemon (*Penstemon strictus*)\* Hummingbirds come to the early blue flowers. Native to higher elevations may need more water than other Penstemons.

### Summer to Fall:

- Antelope Horns (*Asclepias asperula*). Showy cream-colored flowers clustered in large umbels, available as seed.
- Showy Milkweed (*Asclepias tuberosa*). Showy yellow to orange flowers clustered in umbels. Monarchs and Queen Butterflies visit this and other native milkweeds that we plan to add over time.
- Horsetail Milkweed (*Asclepias subverticillata*). These are taller plants with delicate leaves and flowers, they provide nectar for a variety of insects, including tarantula hawks, and host plant for Monarch and Queen butterflies.
- Arizona Thistle (*Cirsium arizonicum*). Red flowers are clustered in a tight head, very attractive to hummers, Two-Tailed Swallowtail butterflies and others for nectar.
- New Mexico Thistle (*Cirsium neomexicanum*). Showy pink flowers, nectar source. Thistles are host plants for Painted Lady butterfly. This widely distributed butterfly uses other native species as well.
- White Dalea (*Dalea albiflora*). Nectar for a variety of native pollinators.
- Turpentine Bush (*Ericameria laricifolia*). Attracts native bees; blooms in the fall.
- Wright Buckwheat (*Eriogonum wrightii*). Nectar source, host plant for Mormon Metalmark. Blooms in late summer and fall. Pinkish-brown seeds that follow blooms are also showy well into fall.
- Hopi Blanketflower (*Gallardia pinnatifida*). A variety of tiny native bees and other visitors are attracted to this delicate bright yellow and orange flower head.
- Pearly Everlasting (*Gnaphalium wrightii*). This silvery-leafed native perennial is a host plant for American Lady butterflies.
- Annual sunflower (*Helianthus annuus*). Two-tailed swallowtail butterflies and goldfinches love the seeds and leaves. Most sunflower family members are great for butterflies because they love the broad, sunny landing perches. Annual sunflowers are a good nectar source for migrating monarchs.
- Wright Bee Flower (*Hymenothrix wrightii*). Native bees love these flowers.

### Flowers for shade / part sun that need more water

(Part of our new passively fed “Rain Garden” and shady areas nearby)

- Licorice Mint (*Agastache rupestris*) – Flowers attract Painted Lady and other butterflies and hummingbirds. Late summer to fall bloom. Like some shade.
- Golden Columbine (*Aquilegia chrysantha*). Hummingbirds, large lovely moths come to yellow flowers, day and night. Late spring and summer bloom. Sometimes a second bloom in the late summer to fall. Do not select other Columbines that are

available at nurseries, they do poorly here. This one is locally native and vigorous. Reseeds in the landscape.

- Coral Bells (*Heuchera sanguinea*)\* Delicate red flowers are attractive to hummingbirds. Native to southern AZ and southwestern NM. Likes rocky areas and well-drained soil.
- Bee Balm or Monarda, (*Monarda menthaefolia*). Hummingbirds and bees come to this native mint. Needs a moist, shady, protected area.

#### Night Blooming Perennials

- Sacred Datura (*Datura innoxia*). A nectar source for large hawkmoths, bees. This is a poisonous plant, so it is not recommended for areas where children play.
- Ageratina (*Ageratina spp.*)\* A nectar source for a variety of night flying moths
- Hooker's Evening Primrose (*Oenothera hookeri*)\* Hawkmoths and hummingbirds visit these summer blooming flowers. Opening in evening and early morning.
- Four-o-Clocks: *Mirabilis longiflora*, *M. multiflora* and *M. albida* and others. Hosts and nectar sources for hawkmoths. Other insects visit the flowers as well. Are found in the garden or nearby in natural areas at CNC. Our natives are not available commercially – save on your property if you have them!

#### Native Grasses

- Big Galleta (*Hilaria rigida*)\*
- Blue Grama (*Bouteloua gracilis*)
- Bull Grass (*Muhlenbergia emersleyi*)\*
- Deer Grass (*Muhlenbergia rigens*)\* Best for areas with more available moisture.
- Little Bluestem (*Schizachyrium scoparium var. scoparium*)\*
- Purple Three Awn (*Aristida purpurea*)
- Side-oats Grama (*Bouteloua curtipendula*).

Grasses are host plants for the caterpillars of a number of beautiful skipper and satyr butterflies. Some such as our Red Satyr lay their eggs on dead, fallen organic materials and grasses making it difficult to determine host species. In addition to retaining moisture, this is one more good reason to retain organic materials on your soil surface!

Most of the above grasses are available from either seed or containers. Other native grasses may also be available by seed; a number of horticultural varieties of *Muhlenbergia* are available to plant from containers.

Native grasses add lovely accents and seed sources for visiting wildlife. Grasses can be seeded together with native wildflowers over small or large areas to create graceful flow and beauty, especially in late summer and fall. These can be cut back after seeds mature and fall -- to clean up for spring and for fire season. Warm season grasses will start to green up again in late spring will fully return with their attractive inflorescences with the onset of summer rains.