



Pollinator Garden Requirements for Habitat Challenge 2014
Based on the Penn State Extension Master Gardener certification program

Neighborhoods are once again challenged to create wildlife friendly yards using native plants, but with an added challenge of supporting our pollinators with specific plant palettes and garden husbandry. This spring, make a home for bees, butterflies, beetles, moths, hummingbirds in your backyard. For additional resources to assist with pollinator plant species, see Lady Bird Johnson Wildflower Center's plant database at www.wildflower.org/explore or Pollinator Partnership's regional plant guides at <http://pollinator.org/guides.htm>. By following these guidelines for a pollinator garden, your yard will additionally qualify as a Backyard Habitat. (Please complete the form for your National Wildlife Federation certification, if you are not yet certified.)

STEP 1: PROVIDE WATER SOURCES (Check 1 or more.)

Like all living things, pollinators need a source of water. How do you provide water for pollinators?

- Birdbath
- Stream
- Butterfly puddling area
- Garden Pond
- Other _____

STEP 2: PROVIDE SHELTER (Check 2 or more)

Pollinators need places to nest and to overwinter. How do you provide overwintering and nesting sites for pollinators?

- Spaces of bare ground
- Man-made boxes
- Rock pile/wall
- Brush pile, Logs, Dead trees
- Shrub Thicket- evergreen or deciduous
- Leave garden cleanup until spring
- Other _____

STEP 3: SAFEGUARD POLLINATOR HABITAT

Invasive Plants

Did you know that invasive plants threaten pollinator habitat by endangering the native plants that pollinators require for survival? Invasive plants that move from our yards to woodlands and natural areas threaten diversity that is vital to pollinator survival. We can all help by not planting invasives and removing existing invasives on our properties.

How do you safeguard pollinator habitat in your landscape?

- I avoid acquiring invasive ornamental plants
- I have removed or am removing invasive plants currently on my property.

Indicate invasive species being removed:

- Ligustrum spp.
- Chinese Tallow
- Chinaberry
- Nandina
- Japanese Honeysuckle
- Catsclaw
- Other _____

Pesticide Use: Poisoning of non-target insects, including bees, and other pollinators is an often overlooked factor of pollinator gardening. Even the products approved for organic gardening, such as rotenone, BT and spinosad, are very toxic to pollinators. If a pesticide is made to kill insects it will not discriminate between good species and bad species and many residential and garden pesticides do not include butterfly or bee toxicity on their labels. When purchasing your plants make sure you ask the nursery if they use pesticides and if they do, what kind. If they don't know, assume that a pesticide has been used. Remember, some systemic pesticides can be toxic to pollinators for 120 days or more!

- I don't use pesticides
- I occasionally use pesticides, but do all of the following:
- Clearly identify the pest before taking action
- Use less toxic pesticides such as horticultural oil and insecticidal soap
- Always follow label directions
- Never spray plants in bloom
- Spray late in the evening when bees are less active
- Target spray only the problem spots

STEP 4: PROVIDE FOOD

Nectar and Pollen Sources. Pollinators need a diversity of nectar and pollen sources to sustain them. How do you provide food for pollinators? Choose plants that provide pollen and nectar sources from early spring to late fall and with various flower shapes. Avoid hybrids and cultivars; usually native plants are the best providers of nectar and larval food. Plant in clumps, rather than single plants, to better attract pollinators.

From the lists below, select the pollinator friendly native plants that you have on your property. Check all that apply:

TREES Check at least 4 species of trees/shrubs.

- Black Willow *Salix nigra*, flowers in spring, attracts bees and butterflies
- Kidneywood *Eysenhardtia texana*, flowers spring and fall, attracts butterflies and bees
- Hop Tree *Ptelea trifoliata* flowers in spring, attracts butterflies also larval plant
- Eve's Necklace *Styphnolobium affine*, flowers in spring, on west side of Austin; attracts bees and nectar insects
- Anacacho Orchid Tree *Bauhinia lunarioides*, flowers in spring, attracts butterflies and bees
- Red Buckeye *Aesculus pavia* var. *l. pavia*, flowers in spring, attracts hummingbirds
- Honey Mesquite *Prosopis glandulosa* var. *glandulosa* flowers in spring and summer, insect nectar source
- Texas Redbud *Cercis canadensis* var. *texensis*, flowers in spring, attracts bees, larval plant
- Mexican Plum - *Prunus mexicana* flowers in spring, attracts butterflies, bees, larval plant
- Mexican Buckeye – *Ungnadia speciosa*, flowers in spring, attracts butterflies and bees
- Goldenball Lead Tree *Leucaena retusa*, flowers in spring, attracts butterflies and bees

Other _____

SHRUBS

- Turk's Cap *Malvaviscus arboreus* var. *'Drummondii'* flowers in spring through fall, in west Austin, attracts hummingbirds/butterflies
- Globe Mallow *Sphaeralcea ambigua*, flowers in summer and fall, attracts bees/butterflies
- White Mistflower *Ageratina havanensis*, flowers in fall, in west Austin, attracts moths/butterflies
- Elbow Bush *Forestiera pubescens*, flowers in spring, in west Austin, attracts butterflies/bees
- Flame Acanthus *Anisacanthus quadrifidus* var. *wrightii*, flowers in summer and fall, attracts hummingbirds/butterflies
- White Honeysuckle Bush *Lonicera albiflora*, flowers in spring, attracts butterflies/bees
- Butterfly Bush *Buddleja marrubifolia*, flowers in summer and fall, attracts butterflies
- American Beautyberry *Callicarpa americana*, flowers in summer, attracts bees

- ___ Buttonbush *Cephalanthus occidentalis*, flowers in summer, attracts bees/beetles/butterflies
- ___ Black Dalea *Dalea frutescens*, flowers in summer and fall, attracts bees
- ___ Texas Lantana *Lantana urticoides*, flowers in summer and fall, attracts butterflies
- ___ Fall Aster *Aster oblongifolium*, flowers in fall, attracts butterflies, moths, bees
- ___ Perennial Hibiscus *Hibiscus moscheutos*, flowers in summer and fall, attracts hummingbirds
- ___ Rock Rose *Pavonia lasiopetala*, flowers in summer, in west Austin, attracts butterflies and bees
- ___ Cherry Sage *Salvia greggii*, flowers in spring through fall, in west Austin, attracts butterflies hummingbirds
- ___ Coralbean *Erythrina herbacea*, flowers in spring, attracts hummingbirds
- ___ Cenizo *Leucophyllum frutescens*, Flowers after rain in summer, attracts bees and hummingbirds
- ___ Agarita - *Mahonia trifoliolata* flowers in spring, attract butterflies and bees.
- ___ Bee Brush - *Aloysia gratissima*, flowers in summer, attracts butterflies and bees
- ___ Mealy Blue Sage - *Salvia farinacea*, flowers in summer, attracts butterflies and bees
- ___ Evergreen Sumac - *Rhus virens*, Flowers in the fall, attracts butterflies and bees
- ___ Crucita - *Chromolaena odorata*, Flowers in the fall, attracts butterflies/ bees/moths
- ___ Maximilian Sunflower - *Helianthus maximiliani*, Flowers in the fall, attracts butterflies, bees and beetles
- ___ Pride of Barbados – *Caesalpinia pulcherrima*, Flowers in summer, attracts butterflies and hummingbirds

Other _____

NATIVE PERENNIAL FLOWERS, GRASSES and VINES

CHECK AT LEAST 6 SPECIES, with 2 flowering in spring, 2 flowering in summer and 2 flowering in fall. Please make sure that the plant has both the common name and the scientific name.

Vines

- ___ Crossvine *Bignonia capreolata*, flowers in spring, attracts bees and hummingbirds
- ___ Carolina Jessamine *Gelsemium sempervirens*, flowers in spring, attracts hummingbirds
- ___ Coral Honeysuckle *Lonicera sempervirens*, flowers in spring and summer, attracts hummingbirds
- ___ Passion Vine *Passiflora incarnata*, flowers spring and summer, attracts butterflies/bees/beetles, a larval plant
- ___ Trumpet Vine *Campsis radicans*, flowers in summer, attracts bees and hummingbirds
- ___ Texas Wisteria *Wisteria frutescens*, flowers in spring, attracts butterflies, a larval plant
- ___ Coral Vine *Antigonon leptopus*, flowers in spring, summer, attracts bees and hummingbirds

Grass

- ___ Little Bluestem *Schizachyrium scoparium* larval host for butterflies, can also provide shelter
- ___ Sideoats Grama *Bouteloua curtipendula* larval host for butterflies, can also provide shelter
- ___ Big Bluestem *Andropogon gerardii* larval host for butterflies, can also provide shelter
- ___ Indiangrass *Sorghastrum nutans*, larval host for butterflies, can also provide shelter

Flowers

- ___ Red Yucca *Hesperaloe parviflora*, flowers in spring and summer, attracts hummingbirds
- ___ Twistleaf Yucca *Yucca rupicola*, flowers in spring and summer, in west Austin, attracts moths, a larval plant
- ___ Perennial Winecup *Callirhoe involucrata*, flowers in spring and summer, attracts bee, is a larval plant
- ___ Frogfruit *Phyla nodiflora*, flowers in spring and fall, attract butterflies and bees, is larval plant
- ___ Verbena spp, flowers in spring and fall, attracts butterflies and bees
- ___ Tropical Sage *Salvia coccinea*, flowers in spring through fall in Austin, attracts hummingbirds/butterflies
- ___ Partidge Pea *Chamaerchrista fasciculata*, flowers in summer and fall, attracts bees (annual)
- ___ American Basketflower *Centaurea americana*, flowers in summer, attracts bees/beetles/flies/butterflies (annual)
- ___ Illinois Bundleflower *Desmanthus illinoensis*, flowers in summer, attracts bees
- ___ Butterfly Weed *Asclepias tuberosa*, flowers in summer, attracts bees/butterflies
- ___ Antelope horns- *Asclepias asperula*, flowers in the spring, attracts bees/butterflies, is a larval plant
- ___ Green Milkweed – *Asclepias viridis*, flowers in the spring, attracts bees/butterflies, is a larval plant

- ___ Tropical Milkweed-*Asclepias curassavica*, flowers in spring,summer, attracts bees/butterflies, is a larval plant
- ___ Frostweed *Verbesina virginica*, flowers in fall, attracts bees/butterflies/moths
- ___ Heartleaf Skullcap *Scutellaria ovata* subsp. *bracteata*, flowers in spring, in west Austin, attracts butterflies
- ___ Spiderwort *Tradescantia* spp, flowers in spring and summer, attracts bees
- ___ Texas Betony *Stachys coccinea*, flowers summer and fall, attracts hummingbirds
- ___ Purple Coneflower *Echinacea purpurea*, flowers in spring and summer, attracts butterflies/bees/hummingbirds
- ___ Cedar Sage *Salvia roemeriana*, flowers in spring and summer, attracts hummingbirds
- ___ Gulf Coast Penstemon *Penstemon tenuis*, flowers in spring, attracts hummingbirds
- ___ Hill Country Penstemon *Penstemon triflorus*, flowers in spring in west Austin, attracts hummingbirds
- ___ Rock Penstemon *Penstemon baccharifolius*, flowers in spring and summer in west Austin, attracts hummingbirds
- ___ Missouri Primrose *Oenothera missouriensis*, flowers in spring and summer, attracts bees/moths/butterflies
- ___ White Guara *Guara lindheimeri*, flowers in spring through fall in east Austin, attracts butterflies/bees/hummingbirds
- ___ Gayfeather *Liatris mucronata*, flowers in fall, in west Austin, attracts bees/butterflies/hummingbirds
- ___ Golden Grounel *Packera obovata*, flowers in spring, in west Austin, attracts butterflies
- ___ Lanceleaf Coreopsis *Coreopsis lanceolata*, flowers in spring and summer, attracts butterflies/beetles/bees
- ___ Black-eyed Susan, *Rudbeckia fulgida*, flowers in summer and fall, attracts bees/butterflies
- ___ Yarrow - *Achillea millefolium*, flowers in spring, attracts butterflies/bees/moths
- ___ Standing Cypress - *Ipomopsis rubra*, flowers in spring, attracts butterflies and hummingbirds; biennial
- ___ Blackfoot Daisy-*Melampodium leucanthum*, flowers in summer, attracts bees and butterflies
- ___ Bee Balm – *Monarda fistulosa* , flowers in spring, attracts butterflies and hummingbirds
- ___ Anise Hyssop - *Agastache foeniculum* ,flowers in summer, attracts butterflies/ bees/hummingbirds
- ___ Gregg's Mistflower – *Conoclinium greggii* , flowers summer/fall, attracts butterflies, moths, bees
- ___ Pyramid Bush – *Melochia tomentosa*, flowers summer/fall, attracts butterflies, moths, bees
- ___ Skeleton Leaf Goldeneye - *Viguiera stenoloba*, flowers in the fall, attracts butterflies/ bees/ beetles/moths
- ___ Zexmenia - *Wedelia texana*, flowers summer/fall, attracts butterflies, bees
- ___ Golden Eye Daisy - *Viguiera dentata* , flowers in the fall, attracts butterflies/ bees/ beetles/moths

Other _____

Bonus:

Larval host plants (2 or more species)

I am hosting these butterfly caterpillars on these plants.

Host Plant: _____ Butterfly Species _____

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