

UCDAVIS



ARBORETUM AND
PUBLIC GARDEN

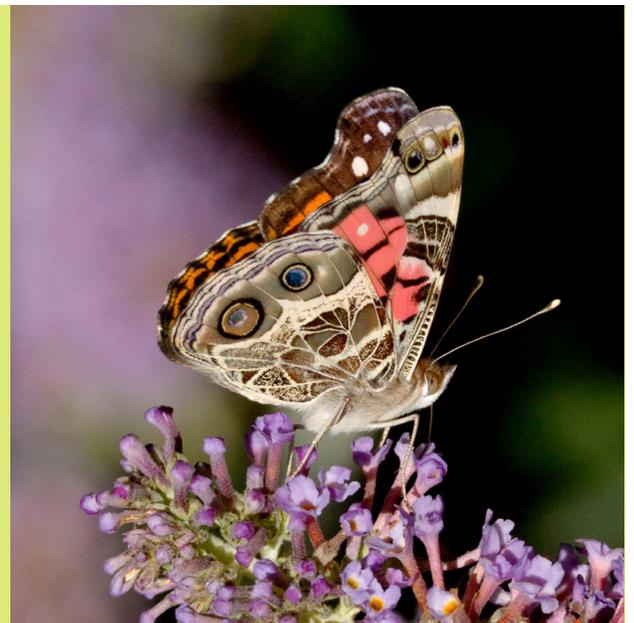


Gardening for Pollinators: What to Plant and Why

Manfred Kusch

Why garden for pollinators?

- Human population growth threatens wild creatures by shrinking their habitat. As native plants disappear, so do the pollinators.
- Nearly all ecosystems on earth depend on pollination of flowering plants for survival. Plants and pollinators have evolved together and depend on one another.
- Placing native plants and other pollinator-supporting plants in the landscape helps support native pollinators.
- Many food crops require pollination to produce fruit. If we were to lose pollinators, we would lose 80-90% of all plants and 1/3 of our crop species. Pollination is vital to our food supply.
- Pollinators are an important food source for other animals, playing a key role in maintaining healthy ecosystems.



What is a pollinator?

- Pollinators include: bees, butterflies, moths, hummingbirds, flies, beetles, wasps, and bats.
- When you look inside a flower you can see small parts tipped with yellow, purple or red fluffy material. This is the pollen, the genetic material of the plant. Pollinators carry pollen from flower to flower, leading to fertilization and the production of seeds and fruit.
- To attract pollinators provide two important foods: protein rich pollen and sugar rich nectar. The plants receive pollen transportation in exchange for providing nutrition to the pollinator, a mutually beneficial arrangement.



How to support pollinators

- Plant a variety of plant types that will bloom from February to October. Increase use of native plants. Plant larval host plants for caterpillars as well as pollen and nectar plants.
- Provide a birdbath or shallow water source, and mud for butterflies and bees.
- Provide shelter and overwintering sites, using native bee blocks or boxes and bat houses, and leaving bare ground for ground-nesting bees. Wait until spring to clean up the garden. Pollinators may overwinter in dead wood, twigs, stems and grasses.
- Avoid using pesticides. Use horticultural oil or insecticidal soap if necessary. Apply in the evening when bees are not foraging.

What to plant . . .

Plant a pollinator garden with flowers throughout the growing season and provide food for native bees, butterflies and hummingbirds active at different times of the year. Note that in the Central Valley most of the butterfly species reach highest densities in summer and fall.

The plants on the following pages were chosen for their attractiveness to a variety of pollinators and arranged by spring, summer, and fall bloom. Most grow in full sun although some will benefit from shade late in the day in summer when temperatures soar. Most are low water although a few benefit from more water as noted.



References

The Xerces Society Guide. 2011. *Attracting native Pollinators*. North Adams MA: Storey Publishing.

Ponder, Marissa V. *How to Attract and Maintain Pollinators in Your Garden*. ANR Publication 8498, October 2013.

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Late Winter and Spring

Low
15" or less



Aristolochia californica
California pipevine

- Deciduous vine
- Winter blooms on bare stems
- Larval food for pipevine swallowtail



Erigeron 'W.R.'
Wayne Roderick's seaside daisy

- Perennial
- Lavender petals and green centers
- Bees and small butterflies



Teucrium x lucidrys
dwarf germander

- Evergreen groundcovers
- Dark rose pink flowers in spring
- Nectar for small bees

Medium
15" - 30"



Bulbine frutescens
Cape balsam

- Semi-evergreen upright foliage
- Orange or yellow flowers over long period
- Pollen for bees and beneficials



Correa species and cultivars
Australian fuchsia

- Evergreen shrub
- Winter flowers dangle like bells
- Hummingbirds



Rosmarinus officinalis, cultivars
rosemary

- Evergreen shrub, many sizes
- Blue flowers in cool weather
- Bees, butterflies and hummingbirds



Salvia greggii cultivars
autumn sage

- Evergreen woody-based perennials
- Red, orange or bicolor flowers in spring and fall
- Bees, butterflies and hummingbirds



Salvia spathacea
hummingbird sage

- Spreading herbaceous perennial, fragrant foliage
- Red flowers in spring and summer
- Hummingbirds

Medium to tall
30" - 60"



Berberis aquifolium cultivars
Oregon grape

- Evergreen shrub with spiny leaves
- Yellow flowers in spring
- Bees, hummingbirds



Ceanothus species and cultivars
California lilac

- Evergreen shrubs, various sizes
- March blooms are blue, violet or white
- Bees and butterflies



Aloe x spinosissima
gold tooth aloe

- Succulent with red flowers
- Hummingbirds



Cercis occidentalis
western redbud

- Deciduous shrub, gray rounded leaves
- In February-March, produce magenta blooms
- Various bees

Tall
>5'



Heteromeles arbutifolia
toyon

- Evergreen large shrub
- April blooms, attractive berries in winter
- Various bees and beneficials



Lonicera standishii
winter honeysuckle

- Deciduous shrub
- January bloom, very fragrant
- Hummingbirds, bees



Arctostaphylos densiflora
'Howard McMinn'

- Evergreen shrub
- January bloom pinkish white
- Early bees and hummingbirds



***Ribes* species and cultivars**
currant

- Partially deciduous to evergreen shrubs
- Pink, rose and white flowers from winter to spring
- Hummingbirds

Summer

Low
15" or less



Gaillardia x grandiflora
blanket flower

- Herbaceous perennial
- Yellow, orange, and red flowers in hot weather
- Bees



Nepeta x faassenii
catmint

- Herbaceous perennial
- Lavender blue flowers in spring and summer
- Bees and hummingbirds



***Scabiosa* 'Butterfly Blue'**
butterfly blue pincushion flower

- Herbaceous perennial
- "Pincushion" lavender pink flowers during long season
- Bees and butterflies

Medium
15" - 30"



***Achillea* 'Coronation Gold'**
yarrow

- Herbaceous perennial with ferny foliage
- Yellow flowers in summer
- Bees



***Aster x frikartii* 'Mönch'**
mönch aster

- Herbaceous perennial
- Lavender daisies all summer
- Various bees, butterflies



***Origanum* species and cultivars**
oregano

- Herbaceous perennial
- Rosy, pink or purplish summer flowers
- Bees and butterflies



Salvia chamaedryoides
germander sage

- Evergreen small shrub
- True blue spikes of flowers spring and fall
- Bees

Medium to tall
30" - 60"



***Asclepias* species**
milkweed

- Deciduous perennial
- Pink and cream flower cluster
- Larval food for Monarch butterflies, nectar for bees



***Buddleja* dwarf cultivars**
butterfly bush

- Deciduous shrub
- Many flower colors and blooms in summer
- Butterflies and hummingbirds



Dasylirion wheeleri
desert spoon

- Large evergreen rosettes
- Tall spike creamy flowers
- Bees



***Eriogonum* various species**
buckwheat

- Evergreen shrubs
- Creamy clusters of small flowers
- Bees, beneficials and butterflies



Hesperaloe parvifolia
coral yucca

- Evergreen upright rosette
- Flowers coral pink, long spikes in summer
- Hummingbirds



Lavandula x gingsinsii
'Goodwin Creek Gray',
Goodwin Creek lavender

- Evergreen small shrubs
- Spikes of purple-blue flowers
- Bees and butterflies



Salvia clelandii cultivars
Cleveland sage

- Evergreen shrubs with fragrant foliage
- Whorls of blue-lavender flowers on spikes in spring into summer
- Bees, butterflies and hummingbirds



Perovskia atriplicifolia and cultivars
Russian sage

- Perennial with woody base
- Large clusters of delicate blue flowers late summer and fall
- Bees

Tall
>5'



Callistemon species and cultivars
bottlebrush

- Tough, evergreen trees and shrubs
- Attractive "bottle brush" flowers, red or mauve purple
- Bees, hummingbirds



Chilopsis linearis cultivars
desert willow

- Deciduous tree, multi-trunked
- Large fragrant purple or pink flowers
- Bees and hummingbirds



Vitex agnus-castus 'Shoal Creek'
Shoal Creek chaste tree

- Deciduous large shrub
- Blue-violet flower spikes
- Bees, butterflies



Kniphofia species, hybrids and cultivars
poker plant

- Semi-deciduous clumping perennial
- Bees, hummingbirds

Fall

Medium
15" - 30"



Hylotelephium spectabile
'Autumn Joy' (synonymous with
Sedum spectabile 'Autumn Joy')
Autumn Joy sedum

- Perennial with clumping bright green foliage
- Bees, butterflies



Baccharis pilularis
'Pigeon Point'
Pigeon Point coyote bush

- Evergreen shrub
- Apple-green foliage and creamy flowers
- Bees, butterflies



Epilobium californicum
cultivars
California fuchsia

- Deciduous perennial
- Red flowers
- Bees, hummingbirds



Solidago californica
'Cascade Creek'
Cascade Creek goldenrod

- Upright spreading perennial
- Yellow flowers
- Bees, hummingbirds

Medium to tall
30" - 60"



Salvia leucantha
Mexican bush sage

- Large perennial with woody base
- Purple or purple and white flowers in fall
- Hummingbirds