

BEEKEEPING FOR NATIVE BUMBLE BEES

Keeping bumble bees is much less work than keeping honey bees. Plus, bumble bees are native and pollinate our native plants, whereas honey bees are European and kept for domestic crops. San Francisco has 90 species of native bees, bumble bees being just one of many types. Bumble bees will pollinate your garden's fruits and vegetables, as well as flowers. They do not produce honey, nor does any native bee; only the honey bees do that.

Native bees need:

food: nectar and pollen year around

habitat: bumblebees nest in bare soil

To attract bumble bee queens to build nests in your garden soil and keep their families there, you need to plant a year-round buffet of flowers with pollen and nectar. Bumble bee queens can live until late fall/October with new queens emerging from hibernation as soon as November, so your garden must be constantly ready to feed them and their broods. Longer blooming flowers provide a food bridge between plants that bloom for a shorter time.

Winter blooming plants attract queen bumble bees to your garden and induce them to dig into your soil to build their nests.

Barberry (*Berberis pinnata* and *nervosa*)

Malva Rosa (*Malva assurgentiflora*)

Hummingbird Sage (*Salvia spathacea*) blooms through May

Manzanita (*Arctostaphylos* spp)

Currant (*Ribes sanguineum* var. *glutinosum* and *malvaceum*)

Early spring blooming plants keep the bumble bees in your garden, browsing the buffet.

Golden Yarrow (*Eriophyllum confertiflorum*) blooms on into summer

Lizardtail, Seaside Woolly Sunflower (*Eriophyllum staechadifolium*) blooms on into summer

Fringe Cups (*Tellima grandiflora*)

Strawberry (*Fragaria vesca*)

Pitchersage (*Lepechinia calycina* and *fragrans*)

Western Thimbleberry (*Rubus parviflorus*)

Salmon Berry (*Rubus spectabilis*)

Huckleberry (*Vaccinium ovatum*)

Arroyo Willow (*Salix lasiolepis*) is a keystone wildlife species

Hollyleaf Cherry (*Prunus ilicifolia*)

Mid-late spring blooming plants are abundant, as most California native plants bloom in the spring at the end of the rainy season. With flowers everywhere, bumblebees will continue to stay in your garden if you are keeping them well fed. Why expend the energy to fly elsewhere if the local buffet is delicious?

Lupines (*Lupinus albifrons* var. *collinus*, *arboreus*, *bicolor*, *chamissonis*, *nanus*, *polyphyllus*, *succulentus*, *variicolor*)

Common Woolly Sunflower (*Eriophyllum lanatum*)

Coffeeberry (*Frangula californica*)

Seaside Daisy (*Erigeron glaucus*)

Vine maple (*Acer circinatum* and *macrophyllum*)

Yarrow (*Achillea millefolium*) Male bees will sleep on yarrow flowers in the evenings; females expel them from the nest after they have hatched.

Onion (*Allium dichlamydeum*)

Brodiaea elegans

Ceanothus (*Ceanothus* spp.) #1 bumblebee favorite plant in March and April

Yerba Buena (*Clinopodium douglasii*)

Coral Bells (*Heuchera micrantha* and *maxima*)

Monkey Flower (*Diplacus (Mimulus) aurantiacus*)

Phacelia (*Phacelia californica*) (perennial) and all the phacelia annuals - #1 bumblebee favorite plant in May

Sages (*Salvia spathacea, leucophylla, mellifera*)

Blue Elderberry (*Sambucus nigra* ssp. *caerulea*) is a supermarket for wildlife. Flowers invite bumble bees and other nectar-hunters; small insects visiting the flowers are eaten by birds that wait for them; then the berries feed people and birds; leaves are consumed by butterfly larvae; and the hollow stems are used as nests by leafcutter and mason bees.

California Bee Plant (*Scrophularia californica*)

Hedgenettle (*Stachys ajugoides, bullata, chamissonis*) needs damp area

Ithuriel's Spear (*Triteleia laxa*)

Summer blooming plants during the dry season continue to feed your bees. Male bumble bees hatch in July, so there are more bees who need to be fed.

Aster (*Symphyotrichum chilense, subspicatum*)

Deerweed (*Acmispon glaber*)

Clarkia (*Clarkia purpurea, rubicunda* and *amoena*)

Buckwheat (*Eriogonum latifolium*)

California Poppy (*Eschscholzia californica*)

Bush Mallow (*Malacothamnus* spp.)

Vervain (*Verbena lasiostachys*)

Gum Plant (*Grindelia hirsuta, stricta*)

Late summer-fall blooming flowers bridge the end of the dry season and the start of the rainy season. Few plants flower at the end of the dry season, but these will continue to feed your bees.

Coyote Bush (*Baccharis pilularis*)

California Fuchsia (*Epilobium canum*)

Seep Monkey Flower (*Erythranthe guttata*)

Rough Leaved Aster (*Eurybia radulina*)

Goldenrod (*Solidago velutina* ssp. *californica*)

Further Information

An article about gardening in sand for bees: <http://cnps-yerbabuena.org/gardening-for-bees/>

UC Berkeley Urban Bee Lab has extensive Seasonal Recommended Plant Lists for gardening with bees, and other information and resources: <http://www.helpabee.com/>

Books about California native bees

The Bee-Friendly Garden, by Kate Frey and Gretchen LeBuhn

California Bees and Blooms, by Gordon W. Frankie, Robbin W. Thorp, Rollin E. Coville, and Barbara Ertter