

Creating a Pollinator Paradise

Garden as if life depends on it.

- Doug Tallamy



Case Study – Planting Native Protecting the Soil Pollinator Habitat



2011 – Lawn, Rhododendron and weeds. Lots of weeds. With 1 Native tree.

Here is a case study that puts what we've learned today into a practice. This is a photo of our yard in taken in 2011. Sadly lacking in habitat, we set out to transform it into a habitat garden that supports birds, mammals, reptiles, and pollinators.

2023 –
Maple,
Western Red Cedar Vine
Maples
Willow
Pacific Ninebark
Ceanothus
Red Flowering Currant
Evergreen Huckleberry
Camas
Salal
Kinnickinnic
Douglas Aster Echinacea
Goldenrod
Yarrow
Beach Strawberry
Fireweed.



This is taken from the same vantage point 12 years later. In addition to the list of native plants on the slide, 2 downspouts were disconnected and channeled into a bioswale and a rain garden. When we took out a massive birch tree in the back yard, we placed the logs throughout the yard to provide habitat for insects. We've made some questionable decisions, and are working to rectify mistakes that were made as we increase our knowledge about habitat restoration, soil, and native plants.

Pollinators need:
Water
Food
Nesting Sites

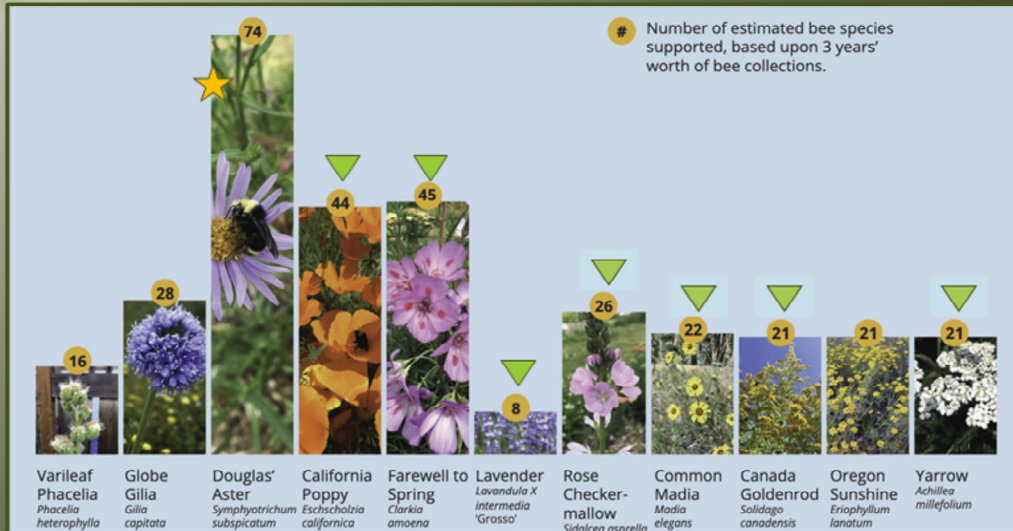


Most native
bees have a
range of a
football
field

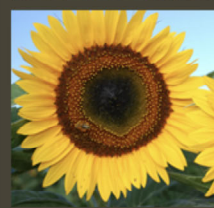
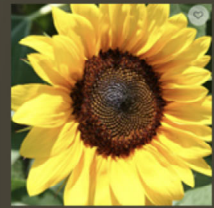


Focusing on the needs of pollinators to create a healthy urban forest, there are three necessities for life, food, water, and places to raise young. Pollinators include wasps, moths, butterflies, birds, flies and small mammals, including bats. But for the next few minutes we'll focus on bees. Fun fact – bees can't swim. So to provide water it is essential to provide access where they can have secure footing while hydrating. This can be as simple as a shallow dish with pebbles, or rocks and sticks placed in a water feature. Food – The large photo above was taken in July, with the fireweed in glorious bloom. The inset shows the flowers available 6 weeks later – douglas aster and black-eyed susan. There is also some lavender in the center.

Choose plants rich in nutrition



Pro Cut Brilliance



Sunflower Taiyo

Photos: Harris Seeds

Oregon State University Garden Ecology Lab

And speaking of asters and lavender . . . The plants you choose can make a big difference in the pollinators supported. Bees can be generalists – meaning they will go after any pollen and nectar producing plant, or specialists – meaning that they can only use certain plants for nutrition. Think of monarch butterflies and milkweed.

Some plants that we typically think of as good pollinator plants have been bred to have no pollen. Sunflowers are a prime example.

Floral Resources 9 Months of the Year

- Many solitary bees are active for only 6 to 8 weeks.
- They have limited range – stick close to the nest
- Social honey bees and bumblebees can be active almost all year long, travel for miles, and are generalists in pollen and nectar sources.
- Some native bees are specialists, and can only survive if certain native plants are present.

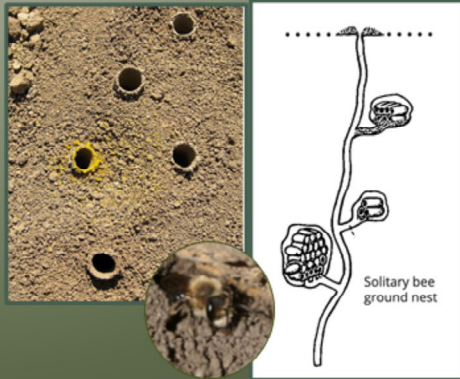
Perennial Bloom Calendar for Portland

Plant Name	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.
Achillea (Yarrow)												
Aconitum* (Monkshood)												
Actea / Cimicifuga* (Bugbane)												
Agastache (Asian Hyssop)												
Anemone* (Japanese)												
Aquilegia (Columbine)												
Arabis** (Rock cress)												
Aster												
Aubrieta												
Aurinia** (Baker of Gold)												
Bellis (English Daisy)												
Brunnera*												
Campanula (Bellflower)												
Centaurea												
Chrysanthemum												
Coreopsis												
Corydalis*												
Crocus												
Dahlia												
Delphinium												
Dianthus (Pinks)												
Dicentra* (Bleeding Heart)												
Digitalis* (Foxglove)												
Echinacea (Coneflower)												
Erigeron (Heabane)												
Eryngium (Sea Holly)												
Erysimum** (Wallflower)												
Fuchsia*												
Gaillardia (Blanket Flower)												
Gaura												
Geranium (Cranesbill)												
Geum												

Graph - Portland Nursery

Provide nesting sites and materials

- 70% of native bees are ground nesting
- They need access to bare soil, crevices
- Though solitary, some species nest in proximity and share duties



- 30% of native bees are cavity nesting
- These species need cavities in dead wood, hollow stems, or brush piles.
- Nesting material provided by humans
- In a pinch, ANY appropriately sized hole

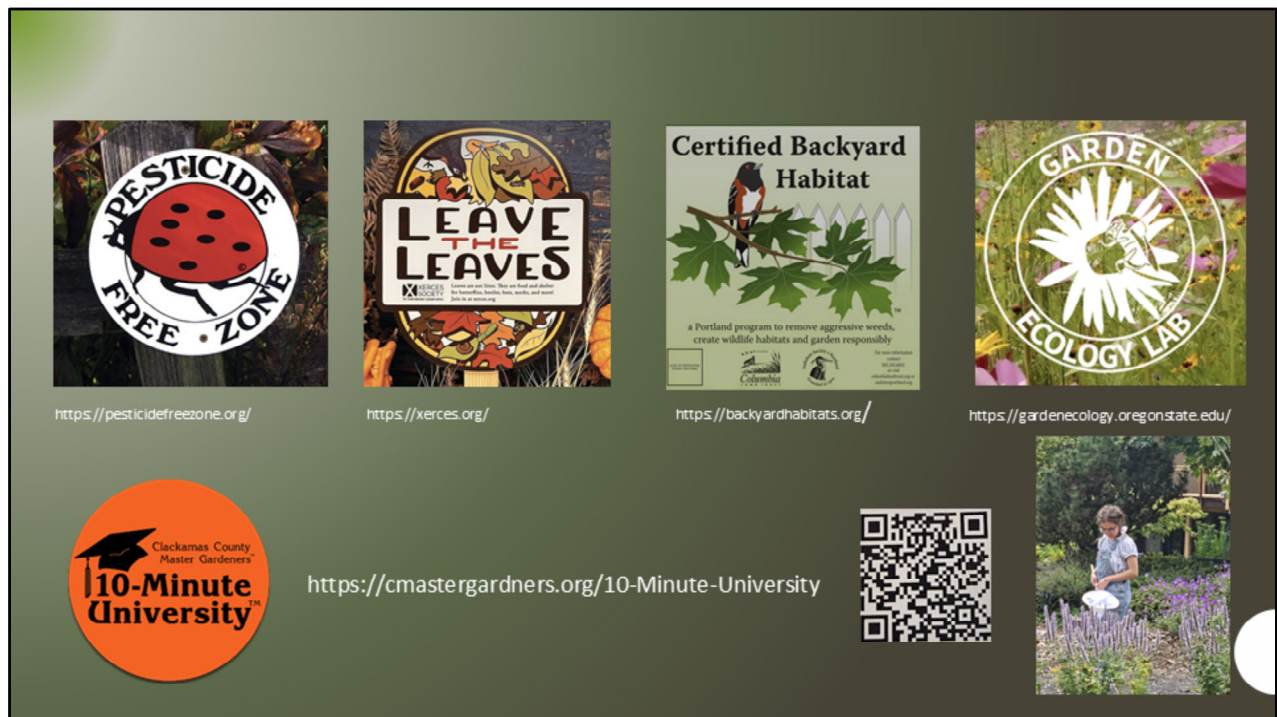


Pithy stems - Raspberry, milkweed, grape, kiwi

Downed wood and snags

Dry soil with no mulch

Fabricated nesting materials – Bee blocks, cardboard tubes and liners



If you are making habitat for pollinators, it's a good practice not to poison them. Go Pesticide Free

Many moth and butterfly cocoons overwinter in leaf litter. Bumble Bee Queens will also tuck themselves into a pile of leaves over the winter.

The Backyard Habitat Program is a wonderful resource to guide you in creating habitat. Clackamas County Master Gardeners 10-Minute University provides research based gardening know-how through webinars, videos and handouts

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- Native is best
- Choose ornamentals that are rich in pollen and nectar
- Provide shallow access to water
- Leave some bare soil for nesting

Take time to look closely at the abundance of life you have provided!

