



Bee City USA: The Role of the Parks and Recreation Advisory Board

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Parks and Recreation Advisory Board Meeting
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Outline

- Bee City USA
- Role of the Parks and Rec. Advisory Board
- Bee incident in Wilsonville
- Bee Stewards
- Partnerships, Projects & Outreach
- Integrated Pest Management

- ✓ A Bee City committee to advocate for pollinators
- ✓ Create and enhance pollinator habitat on public and private land
- ✓ Reduce the use of pesticides
- ✓ Incorporate pollinator-conscious practices into city policies and plans
- ✓ Host pollinator awareness events
- ✓ Publicly acknowledge Bee City USA affiliation with signs and an online presence
- ✓ Pay an initial application fee and annual renewal fee
- ✓ Annually apply for renewal and report on the previous year's activities



Role of Parks and Recreation Advisory Board

- Provide a committee to advocate for pollinators
- Serve as a sounding board for projects and activities
- Act as a channel of communication for the general public
- Encourage participation by individuals and citizen groups





Pesticide

- Dinotefuran (also known as Safari)
- Part of a group of insecticides called neonicotinoids (chemically similar to nicotine)
- They are systemic chemicals, meaning they are absorbed into plant tissue, making the plant itself toxic to insects
- They are long-lasting, and because they can be present in the pollen and nectar, they can be highly toxic to bees





City of
Wilsonville
in Oregon

*Bee Stewards
Wilsonville*

RESTORE, PROTECT, EDUCATE
Pollinators need your help. Join us in making a difference.

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in Oregon



Protecting Our Pollinators

Bee Stewards Wilsonville



Longhorned bee (*Meilissosus sp.*) on a great northern aster (*Cirsium sp. modestus*)
photo: Markow Skyleski

Our Pollinators

Did you know that there are about 5,200 native bee species in North America?

NATIVE SOLITARY BEES: Solitary bees live for about a year and each female creates and provides for her own nest. Tunnel-nesting bees adopt a space in a hollow tube and make cells for their offspring with materials they collect, such as leaf pieces, tree resin or mud. Ground-nesting bees, like the long-horned bee above, dig nests in bare or sparsely vegetated soil. Most ground-nesting bees smooth the cell walls of the nest with their abdomens and apply a waxy substance they produce.



Bumble-bellied bumble bee | photo: Matthew Brown

NATIVE SOCIAL BEES: Bumble bees are social and live in small, annual colonies. The queen emerges from hibernation to found the colony in early spring. She rears the first generation of workers, but then gets help with foraging and tending for her offspring.



Monarch tiger reemotional | photo: Sandy Hertz

OTHER POLLINATORS: Butterflies and moths, non-native honey bees, flies, beetles, ants, bats, and hummingbirds are also important for pollination and a robust ecosystem.



Indian Plum (*Amelanchier canadensis*) One of the earliest natives to leaf out and bloom each spring. Indian Plum is charming with its white flowers.



Pacific Ninebark (*Physocarpus opulifolius*) White, cup-shaped flowers buds are attractive to birds, bees and butterflies when they bloom in late spring.



Mack Orange (*Philadelphus Lewisii*) Discovered by Mordecai Lewis, mack orange is named for its delicious tangy zest, attractive to bees and human alike.



Douglas Spirea (*Spiraea douglasii*) Mid-summer brightest pink to purple flower plumes attract both bees and butterflies.



Thimble Berry (*Rubus parviflorus*) Clusters of showy white flowers result in tart, red, edible fruits, prized by birds and human alike.

Threats

Bees and other pollinators are an important part of the ecosystem. We wouldn't have most of our fruits, vegetables and wildflowers without them. Pollinators currently face many threats including habitat loss, pesticide use, parasites and disease, and climate change. The City of Wilsonville is committed to restoring and expanding pollinator habitat and safeguarding pollinator health.

How to Help

PROVIDE FOOD SOURCES: Plant spring-, summer- and fall-blooming species to provide nectar and pollen over three seasons. Many bees will only visit one type of flower per foraging trip, so planting in clusters makes the flower easy to see and efficient for collecting pollen. Plants with large, lobed lower petals have ideal landing pads for our bigger native bumble bees. Alternately, any plant with clusters of tiny flowers with exposed nectaries are a good choice for tiny native bees that lack long tongues. Many native butterflies rely on specific flowers, such as milkweed, as hosts.

PROVIDE HABITAT FOR NESTS: Leave a little mess! Hollow stems from plants like raspberries and *Echinacea* provide habitat for tunnel nesting bees. Provide some bare dirt without mulch for ground-nesting bees.

AVOID PESTICIDE USE WHEN POSSIBLE: Pesticides can kill pollinators directly, reduce their ability to reproduce and kill the plants they need for survival.



Planted Here

Earliest blooming at top to latest at bottom



PATIO

dimensions: 5' x 4.5'



- key:
- Blue-eyed Grass (5) 1 gallon
 - Meadowfoam (2) seed packs
 - Sea Thrift (10) 1 gallon
 - stone basin 10"x12" holds water for pollinators

Funded by the Wilsonville-Metro Community Enhancement program

COURTYARD

dimensions: 45' x 4.5'



key:

- Beach Daisy (3) 1 gallon
- Douglas Aster (3) 1 gallon
- Flowering Currant (2) 2 gallon
- Great Carnas (12) 1 gallon
- Kinrickinnick (3) 1 gallon
- Monkey Flower (3) 1 gallon
- Mountain Asters (6) 1 gallon
- Ocean Spray (2) 2 gallon
- Oregon Sunshrine (3) 1 gallon
- Pacific Nibebark (2) 2 gallon
- Showy Milkweed (1-4) 1 gallon
- Spirea (2) 2 gallon

Funded by the Wilsonville-Metro Community Enhancement program



Bee Stewards Pollinator Toolkit



Long-horned bee (*Meloboris* sp.) on great northern aster (*Compositus canadensis*) | Photo: Matthew Shepherd

A guide to attracting and sustaining pollinators

March 2018



FORAGE FOR POLLINATORS



- 1 Aster 2 goldenrod 3 Russian and 4 lupine are native perennial wildflowers with long bloom periods, making them dependable nectar sources for bees, butterflies, moths, and birds. The bilberry foliage and rigid stems of aster and goldenrod are especially valuable overwintering habitat for insects.
- 5 Hartsine sage plays an important role in providing forage for pollinators in the garden. Bees and butterflies harvesting nectar from the flowers are easily protected beneath the fat, aromatic foliage.
- 6 Clarkia and 7 poppy will mutually insect, prolonging their bloom span from spring into summer.
- 8 Flat clusters of Western yarrow blossoms provide a soft landing pad for butterflies and beneficial pest-eating insects like ladybugs, who spend long periods of time foraging from all of the flower heads.
- 9 Butterflies will continue to forage for nectar from grand columbia corns late in the season after the petals have dropped.
- 10 Evening primrose blooms at dusk, providing a nectar source for nighttime foraging insects like nocturnal moths.
- 11 Early flowering shrubs like ceanothus
- 12 secondary and 13 red-flowering currant are important nectar and pollen sources for hummingbirds that migrate and native bees that emerge in spring. The foliage also provides food for insects, birds, and butterfly larvae.
- 14 Milkweed is a host plant for several moths and butterflies, including 15 monarchs, whom as caterpillars depend on milkweed leaves as their sole food source. Milkweed blooms in early summer.
- 16 In winter, milkweed pods dry and crack open, allowing the wispy white "wool" to catch in the wind and carry seeds to the ground. Hummingbirds will line their nests with the soft plumes.



Integrated Pest Management

- **Prevent** pest issues in the first place
- **Monitor** and correctly identify pests
- Deal with problems **early**
- Establish **thresholds** of action
- Try **non-hazardous approaches first**
- **Pesticides are a last resort**



Integrated Pest Management (IPM) Program

The City of Wilsonville recognizes the importance of sound environmental stewardship and is committed to optimizing management practices to protect the people and the environment within and surrounding facilities, parks, and infrastructure maintained by City staff.

Pests can be a troublesome and persistent problem. Choosing the appropriate response requires careful planning and implementation to ensure a successful result. Whether the targeted pest is a plant, insect, or animal, the City's response takes into account public safety, environmental health and available resources.

Integrated Pest Management (IPM) offers a broad-based approach that relies on a combination of common-sense practices. An IPM Plan identifies management areas and key pests of concern and outlines approaches mindful of pest biology and the resources of the responsible organization while minimizing the risk associated with pest management.

What's in this report?

The City of Wilsonville adopted the Integrated Pest Management (IPM) plan in 2018. This report identifies common pests and presents a synopsis of program goals and pest management actions employed by City staff during 2021.



Pest Control Practices - Acres Managed

