

## What do I mean by "wildlife"?

Birds, reptiles, amphibians, mammals, and insects

• Insects are key to the survival of many larger animals, especially birds.

• Wildlife also includes pollinators, which aid plant reproduction and are critical to the health of terrestrial ecosystems.

 More than 85% of flowering plants worldwide depend on pollinators.

 About 25% of birds and many mammals depend on the fruits and seeds that result from insect pollination for much of their diets.



# Wildlife need protective cover and shelter

- For nesting and raising young, staying safe during storms, and hiding from predators.
- Trees, shrubs, grasses, and perennials all provide shelter to different critters.
- You can add birdhouses, bathouses, and even beehouses to your landscape.
- Small piles of twigs and brush provide shelter for insects and birds such as jays, varied thrush, finches, juncos, and towhees.



## Wildlife need fresh water

- For drinking.
- For birds to bathe in.
- For crows to soak or wash their food.
- Add stones to a shallow water bowl so insects can drink from it.
- Whether a simple shallow bowl, a bubbler, a creek, a small water feature, or a fullsized pond, fresh water will attract all kinds of animals.



#### Wildlife need food

- Black hawthorn, common snowberry, blue elderberry, serviceberry, Oregon grape, smooth sumac, currants, and kinnikinnick produce berries or fruit.
- Seed-bearing plants include Douglas maple, oceanspray, Scouler's willow, purple sage, Idaho fescue, Indian ricegrass, bluebunch wheat grass, yarrow, sunflowers, blue flax, and goldenrod.
- Some plants whose blooms provide nectar include oceanspray, blue elderberry, showy milkweed, fireweed, penstemons, and orange globemallow.
- Pollinators such as bees collect pollen from flowers to feed to their offspring.



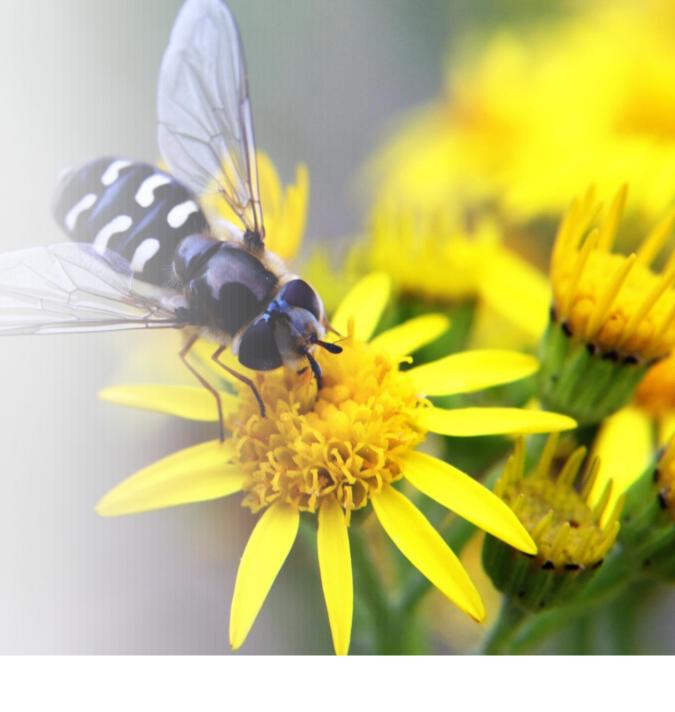
# Wildlife need protection from predators

- Keep cats indoors if possible.
- Wildlife can hide from birds of prey and dogs in trees and shrubs.
- Keep bird feeders and nesting boxes at least 5' above the ground.
- Our dogs run free in most of our fenced backyard except for a couple of spots that are temporarily fenced off.



## Why native plants are so important

- In a healthy ecosystem, animals control pests, pollinate up to 90% of plants, and disperse plant seeds.
- Native plants are more ecologically productive than non-native plants because they have coevolved over thousands of years with native fauna, including seasonal migrators.
- Most plant-eating insects can only develop and reproduce on plants that share an evolutionary history.





Plants that feed caterpillars are crucial

- Caterpillars, the larval form of moths and butterflies, need specific host plants. By adding some of these plants to the landscape, we can feed caterpillars and help butterfly and moth populations to recover and thrive.
- Caterpillars are essential to the food web. They eat plants and then are often eaten by other animals, including birds. Caterpillars are large, soft, nutritious, and high in essential carotenoids.
- For birds to successfully breed, they need thousands of caterpillars just to feed one clutch!

# Plants that feed caterpillars= larval hosts

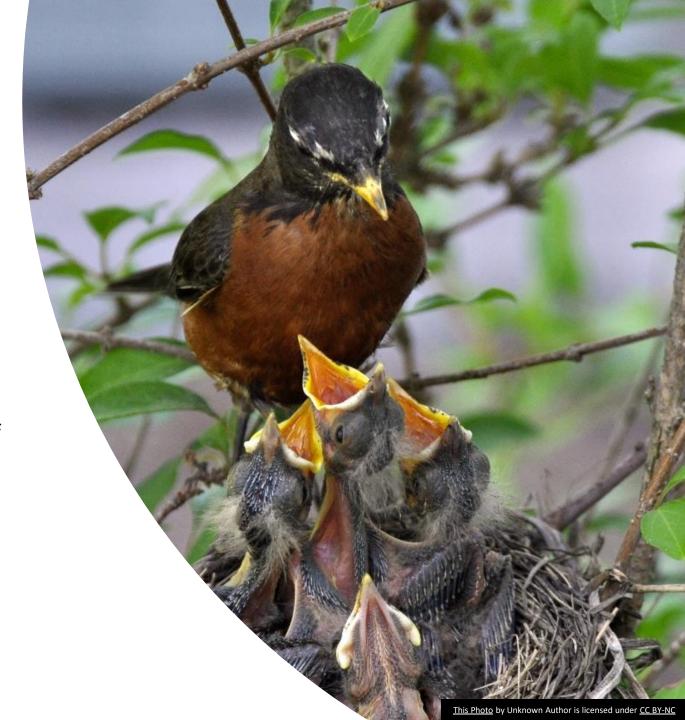
- Larval host plants include Douglas maple, black hawthorn, mockorange, smooth sumac, currants, Scouler's willow, kinnikinnick, blanketflower, common sunflower, and blue flax.
- Native caterpillars munching on native plants IS A GOOD THING. Invasive species of insects attacking primarily non-native species is not our concern.





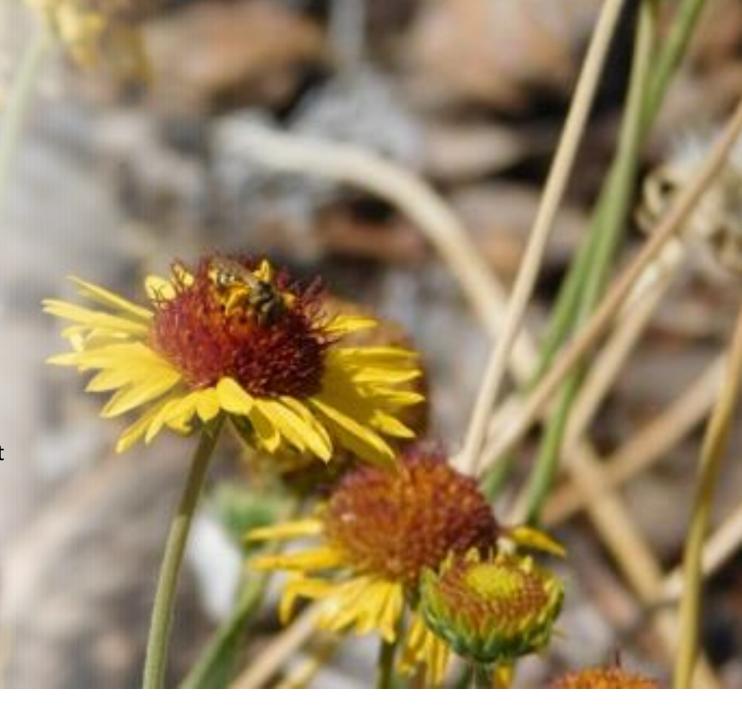
#### Here's some proof

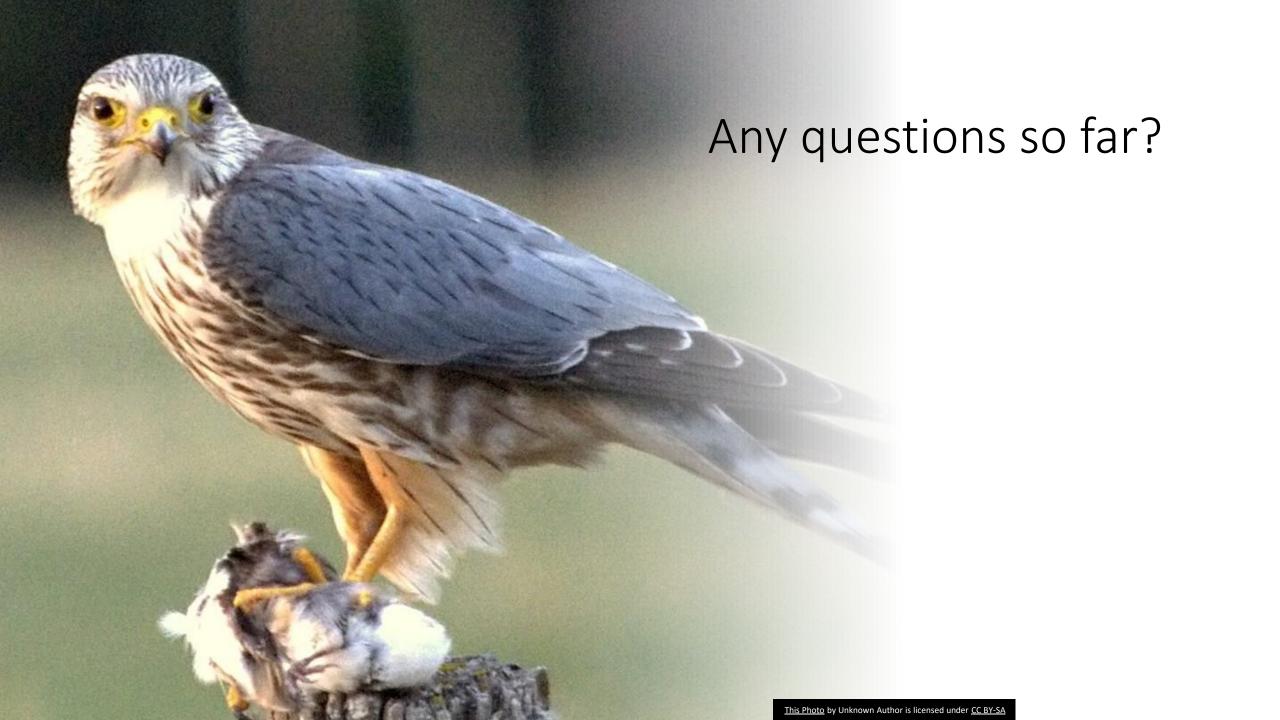
- Research by Desiree Narango in Washington, D.C., compared chickadees in native landscapes and in yards dominated by introduced plants.
- The non-native landscapes produced 75% fewer caterpillars and were 60% less likely to have breeding pairs of chickadees. The nests contained fewer eggs, clutches were less likely to survive, there were fewer fledglings, and they were slower to mature.
- BUT her results also showed that, if at least 70% of the landscape was critical ("keystone") native species, the breeding bird population would be sustainable and wouldn't decline.
- P.S. I know that's not a chickadee in the photo.

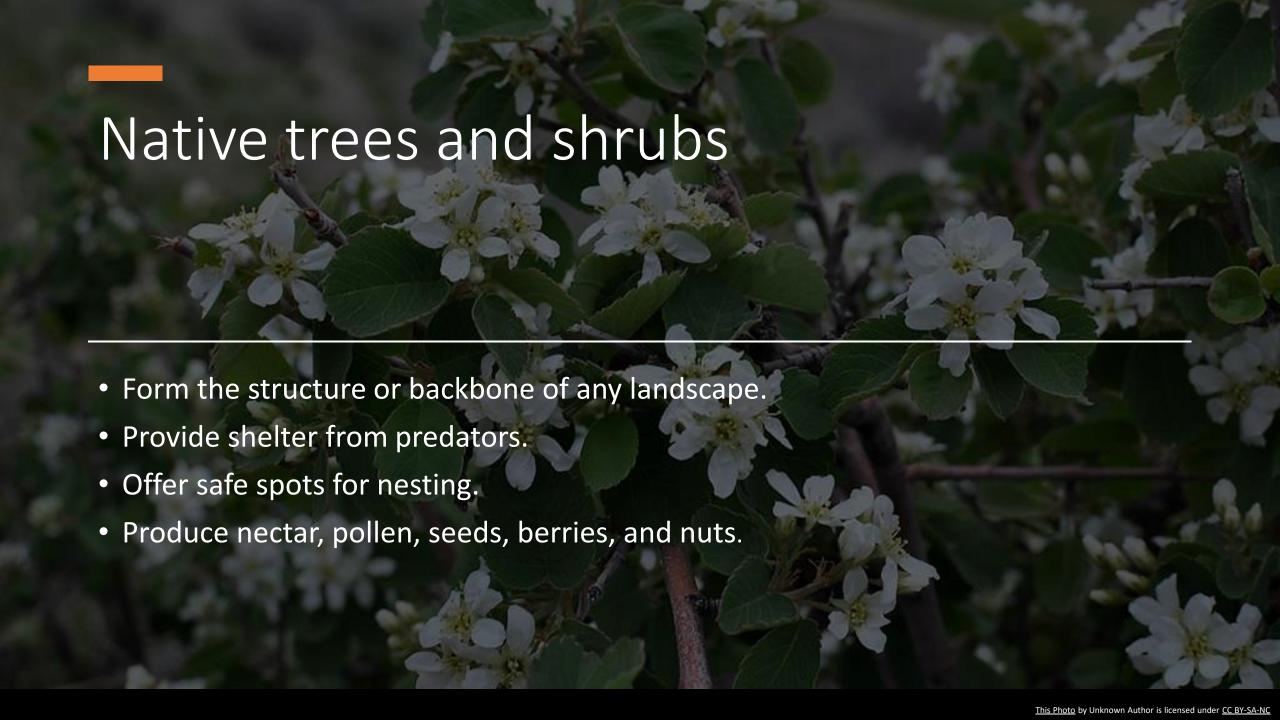


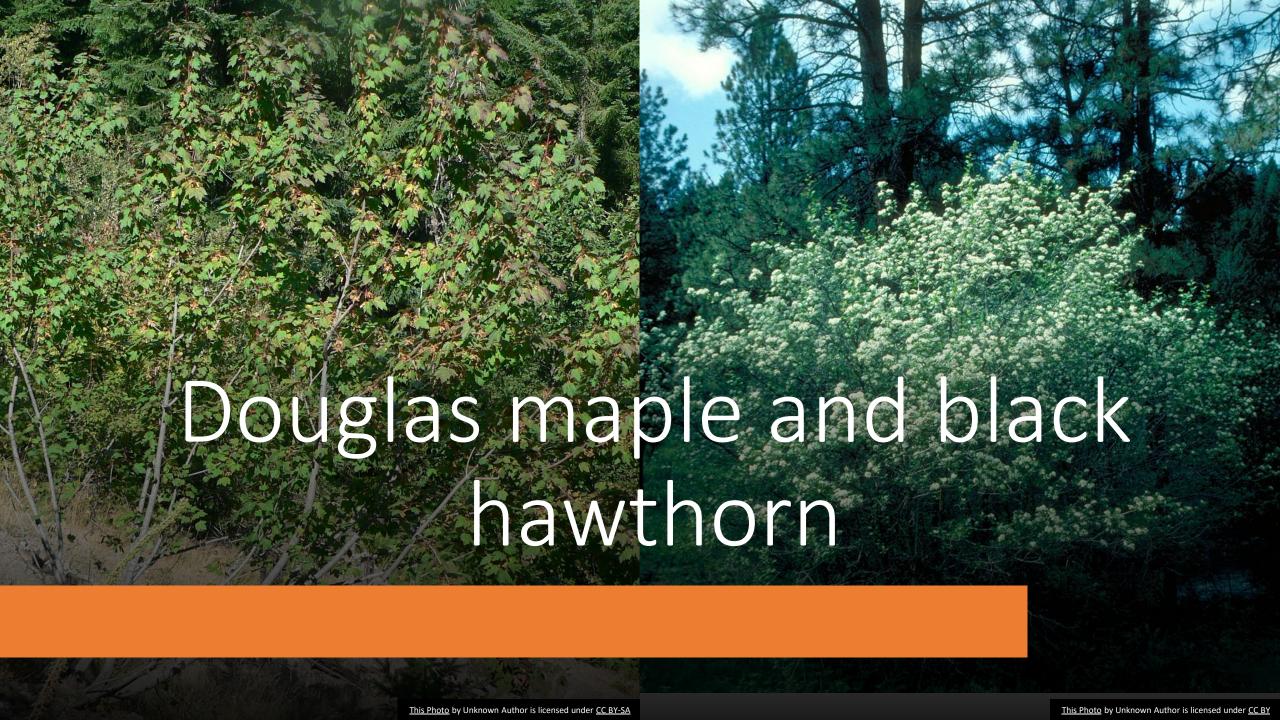
## Why *else* are native plants important?

- Planting drought-tolerant natives saves water (and \$ and labor).
- Once established, they're very lowmaintenance. No-maintenance landscapes are a myth—you'll always have to pull weeds, just fewer and fewer as plants get established and fill in.
- They don't need or want fertilizers that can get into groundwater or pesticides that indiscriminately kill insects and move up the food chain killing birds and other animals.
- Instead of a generic landscape that looks like Anywhere, USA, your yard will reflect the beauty of our local wildlands.











Serviceberry, red-flowering currant, and Oregon grape

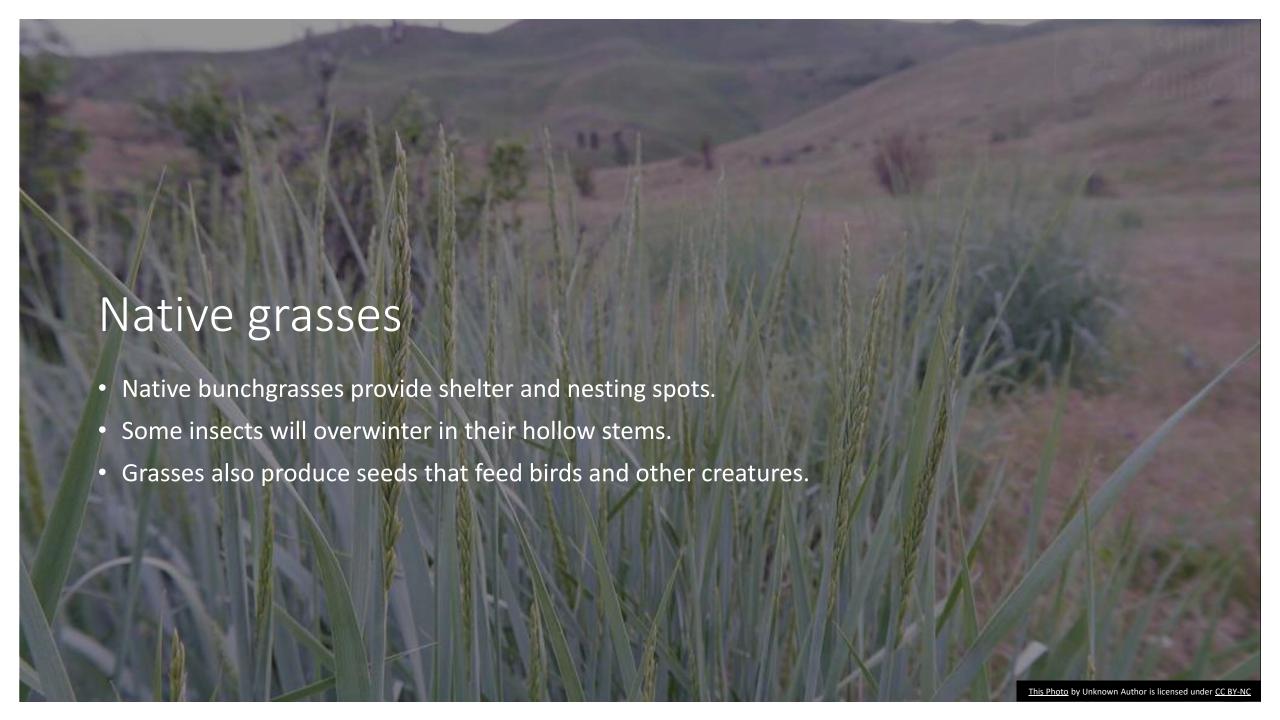


Blue elderberry and smooth sumac

 Elderberry gets quite large. Sumac is very drought-tolerant and spreads to form colonies.

#### Scouler's willow and common snowberry



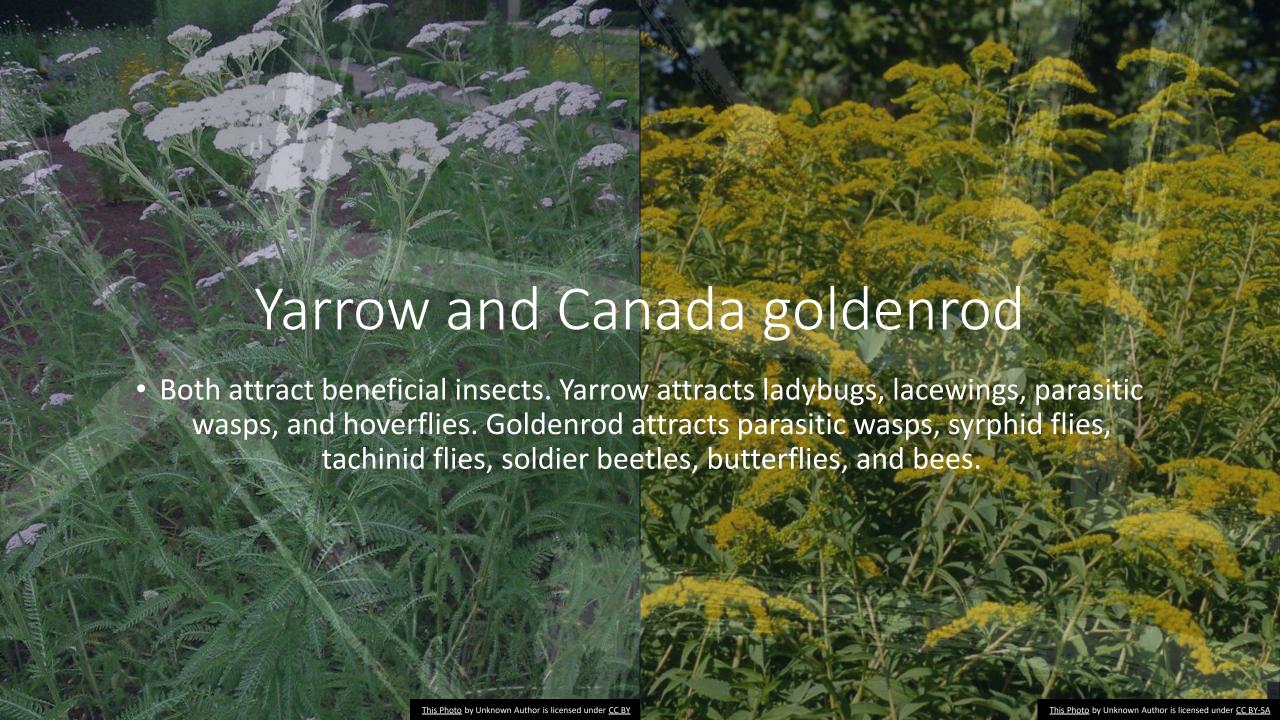






#### Native perennials

- Perennials are excellent sources of nectar, seeds, berries, and pollen.
- They make great perches for birds and insects.
- Some are also larval hosts.
- Plants with hollow woody stems can house overwintering insects and their eggs.
- To keep pollinators happy, plant perennials in groups or large masses and make sure something is in bloom from spring into fall. (Hint: Snow buckwheat is a great lateseason bloomer and is my favorite native perennial.)





Blue flax and blanketflower

# Penstemon and showy milkweed

- There are many species of penstemons with different bloom colors, times, and heights.
- Milkweed is best at the edge of a property, which makes it easier for butterflies to find it. It also spreads rather aggressively so needs some space.











## Reseeding annuals

- Use them to fill empty spaces while other plants are growing.
- They provide pollen, nectar, and seeds over a relatively long period.
- Some of my favorites are Rocky Mountain bee plant, yellow bee plant, globe gilia, and sunflowers.
- I'm also trying foothill clover, largeflowered collomia, and farewell to spring (clarkia).





Reseeding annuals: Globe gilia and Rocky Mountain bee plant





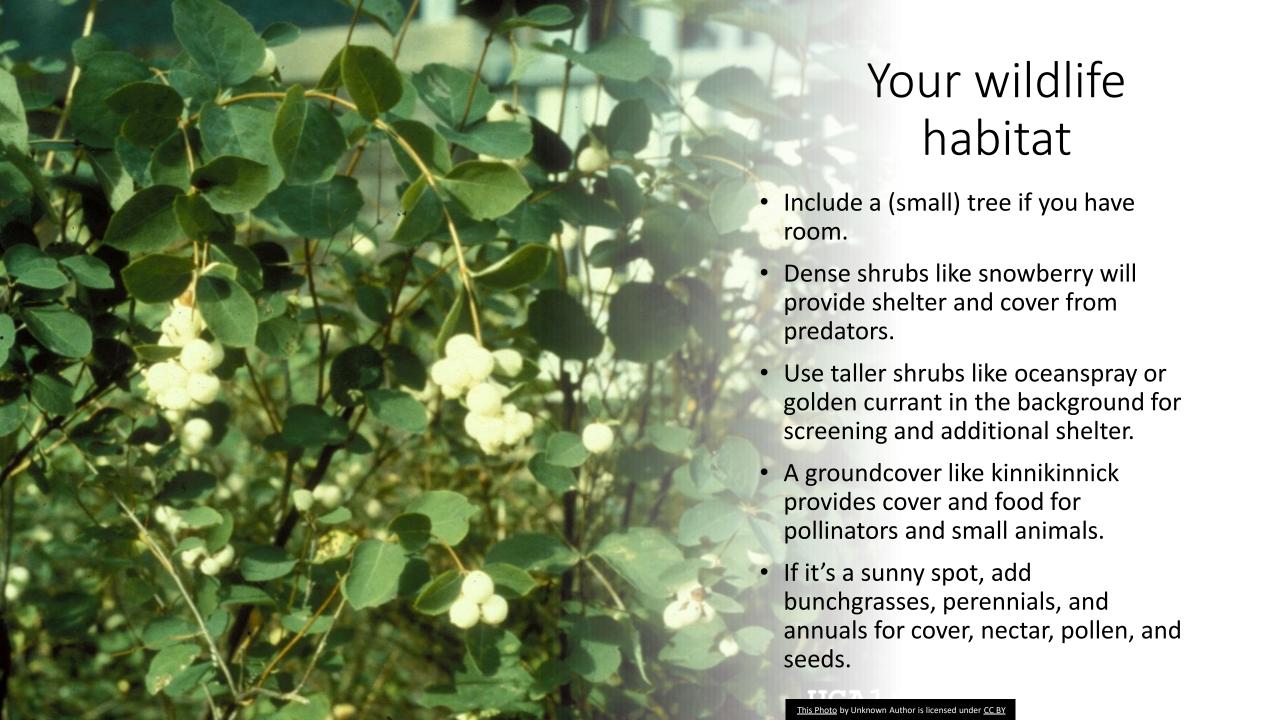
## Wildlife habitat in our tiny urban yard

- We planted yarrow, showy milkweed, and rabbitbrush in the no-man's-land between the driveway and the house;
- Planted a hawthorn, several snowberry, and a vine maple (as an experiment) in the area behind our garage after two weed trees were removed and we extended the fence;
- Added a serviceberry, more snowberry, and a red-flowering currant around the old apricot we're removing;
- Put a golden currant, more snowberry, and a Douglas maple in the side yard next to the front porch; and
- Have planted most of the front yard in perennials such as buckwheats, penstemons, blanketflower, hairy goldenaster, blue flax, and fireweed.

## Locating your wildlife habitat

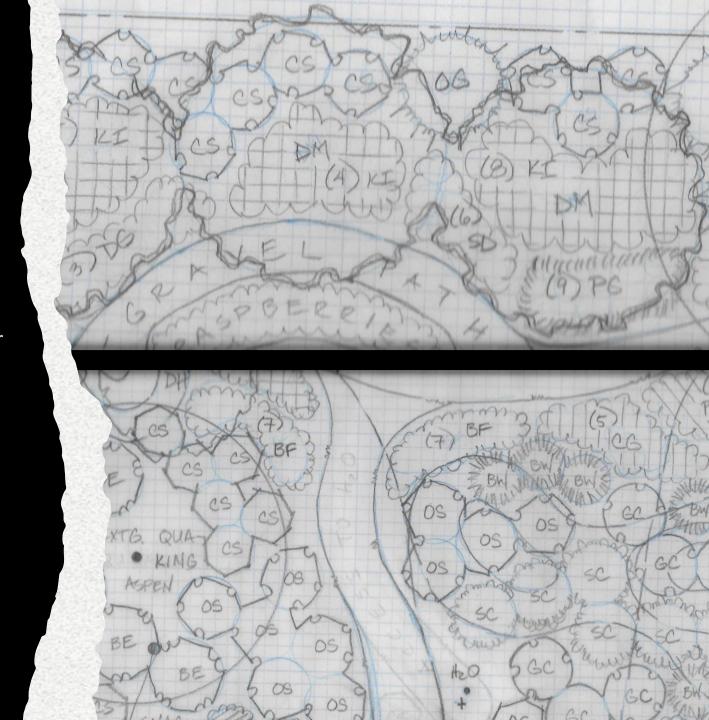
- Consider creating habitat in one or more of the following areas:
- Along your back fence and/or alley;
- On the side of your house;
- Along the property line for habitat + privacy; if you have a large yard, consider planting a hedgerow; and/or
- Turn part (or all!) of your lawn into a pollinator garden.





## Designing your habitat

- Choose plants that match your site: available space, type of soil, sun exposure, hardiness, and drought-tolerance.
- Use graph paper to sketch the area to scale. Use  $\frac{1}{2}$ " = 1'-0" for small areas and  $\frac{1}{8}$ " = 1'-" for larger areas.
- Draw circles to represent your plants, showing them at their approximate mature size.
- If you're putting in a tree or trees, include other plants around it. It will be years before they grow into each other
- Plant shrubs in groups and perennials in masses.
- Don't forget that your new plants may be small now, but they'll grow, so don't overcrowd them.





## Critical landscape maintenance tips

- Never use pesticides.
- Avoid weed barrier and heavy layers of mulch. Ground-dwelling bees and other insects can't dig through them.
- In the spring, wait until the soil is consistently >50 degrees AND you see pollinators flying around (≈when apricots are in bloom) before doing "clean-up." Be sure to leave twigs and other litter for shelter for pollinators and small critters.
- Don't dead-head flowers during the growing season--birds will eat the seeds.
- In the fall, if you have trees, leave the leaves! Many butterflies, moths, and other insects overwinter in them.
- Cut flower stalks at a range of heights, from 8-24", for bee nests.

# Any final questions?





#### Seed and plant sources

- Derby Canyon Natives, Peshastin, WA (plants, grass seed), derbycanyonnatives.com.
- Northwest Meadowscapes, Port Townsend, WA.
  Northwestmeadowscapes.com sells native wildflower
  and grass seeds of the Northwest, including annuals.
  They even have a section with species for the Inland
  Northwest.
- Western Native Seed, Coaldale, CO, westernnativeseed.com. Click on the plant name to get detailed information, including water requirement and a map showing its native range.

#### Resources

- "Nature's Best Hope: A New Approach to Conservation That Starts in Your Yard," Douglas W. Tallamy.
- "The Living Landscape: Designing for Beauty and Biodiversity in the Home Garden," Douglas W. Tallamy and Rick Darke.
- "Attracting Native Pollinators: Protecting North America's Bees and Butterflies," The Xerces Society.
- "Using Native Plants to Preserve Birds and Protect Homes Under a Changing Climate Scenario," Kittitas Audubon Society.
- Contact me at SeasonsUrbanHorticulture@gmail.com.

