

Backyard Habitat Certification Program



Nikkie West, Backyard Habitat Program Coordinator
Audubon Society of Portland

Context – Wildlife in the City



Portland metro area provides critical habitat for 367 Native Species of Fish and Wildlife



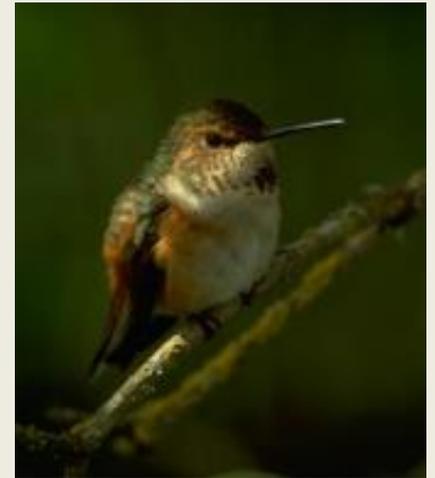
- 47 Fish
- 18 Amphibians
- 15 Reptiles
- 219 Birds
- 68 Mammals
- 10,000+ Insects

However, 25% of our Common Bird Species are in Decline



Common Oregon birds species with greater than 50% population declines during the past 40 years include:

- Barn Swallows
- American Goldfinches
- Rufous Hummingbirds
- Olive-sided Flycatchers
- Orange-crowned Warblers
- Golden-crowned Kinglets
- Killdeer
- Mourning Doves
- House Wrens
- Western Meadowlark

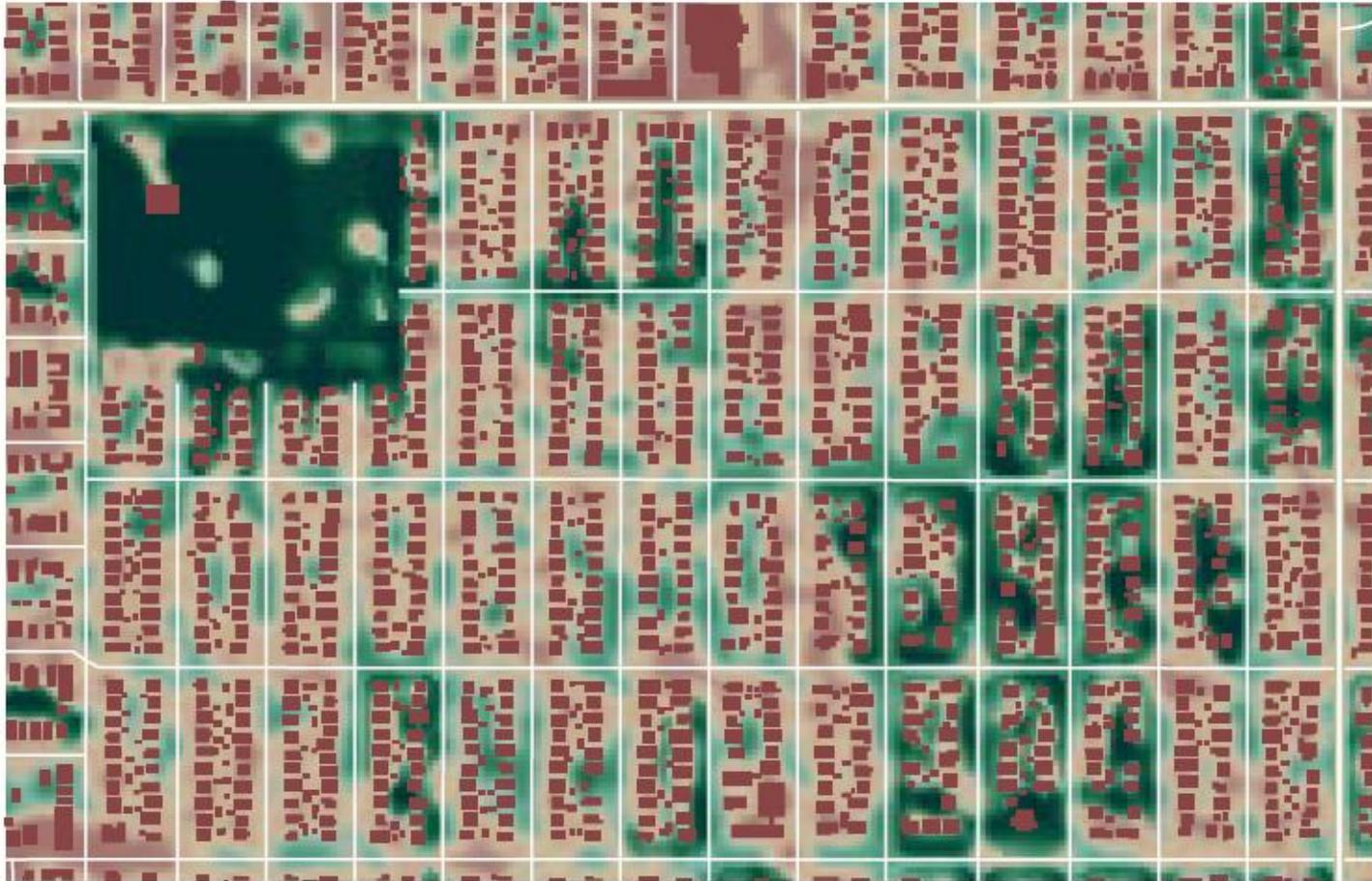


Causes of Decline

- **Loss of habitat** (*impossible to quantify*)
- Man-made hazards throughout birds migratory range



Does my Backyard Matter?



Residential lots make up about 40% of our urban landscape.

*Help us **Keep Common Birds Common!***

How does the Program Work?

- Sign-up; cost = \$25
- 1 Hour Site Assessment w/staff Technician
- Resource Packet & coupons
- Site Report
- Get Dirty – Get Discounts!
- Certification Visit (volunteers do these!)
- Certification sign, recognition and “benefits”
- Upgrades and renewals



Discounted Native Plant Sales

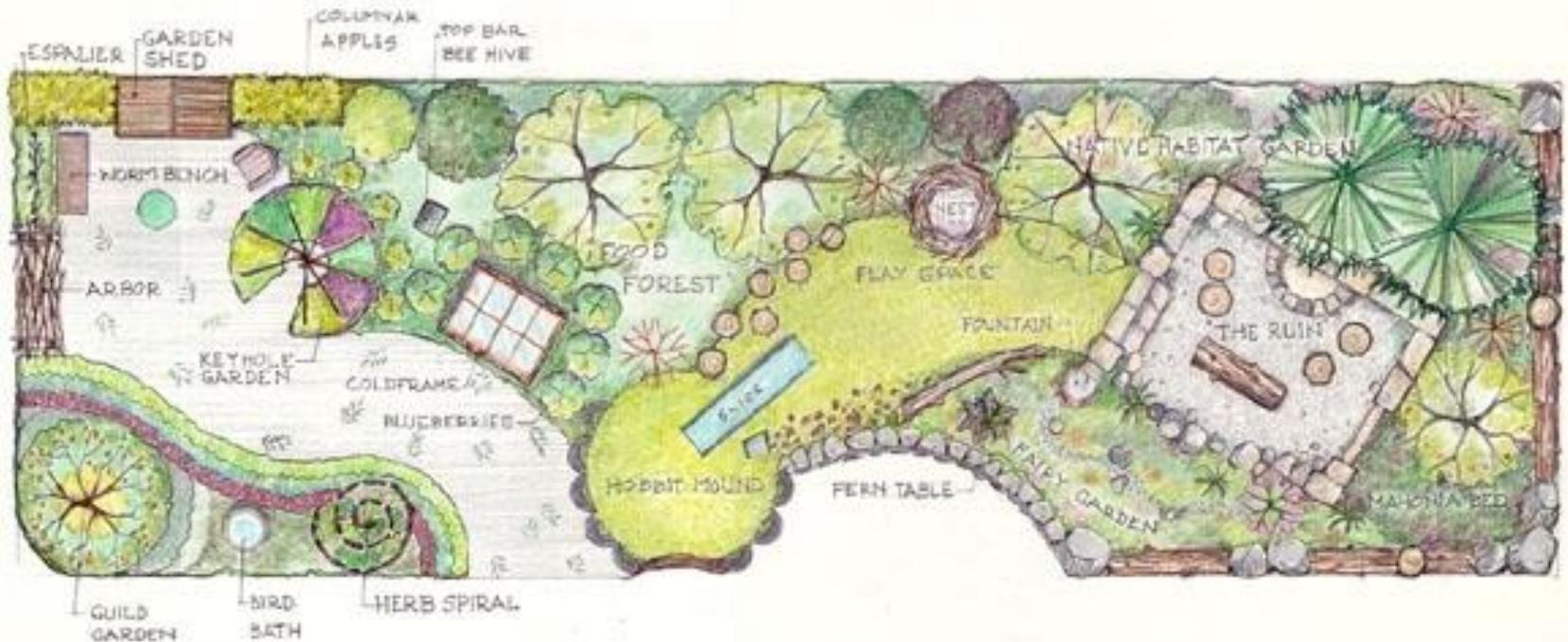


- **Twice annually; each fall & spring**
 - **Almost wholesale prices**
- **Exclusive for BHCP participants**

Professional Landscaper Directory



13 Landscape Professionals listed, received 2 trainings this year, values and practices aligned with the BHCP, each signs an MOU and agrees to terms and conditions



ABUNDANT NATURE - An Enchanted Food Forest

Getting Certified: What does it take?



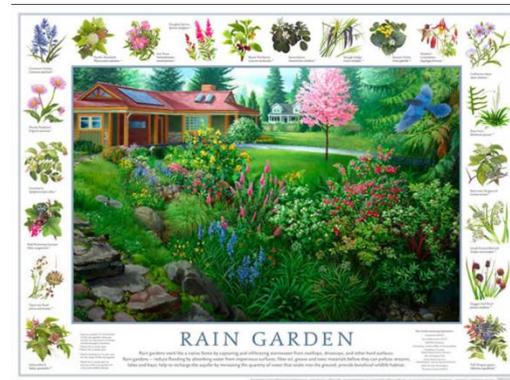
1. Remove Invasive Species



2. Plant Native Species



3. Wildlife Stewardship

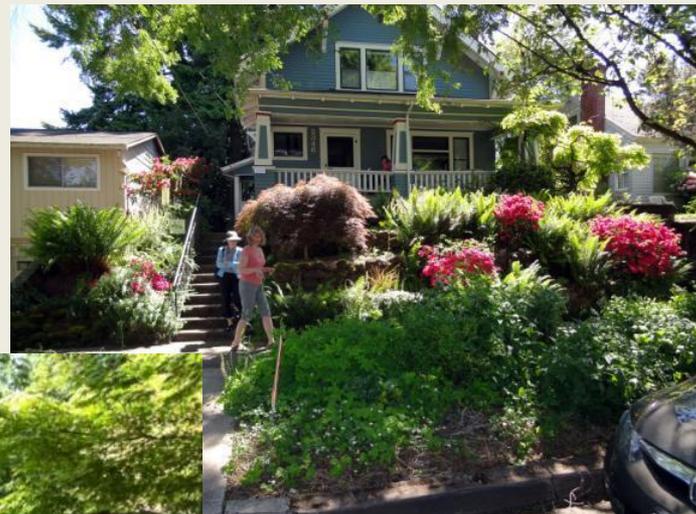


4. Stormwater Management

Certification Levels



SILVER



GOLD



PLATINUM

1. Remove Invasive Plant Species



Silver weeds

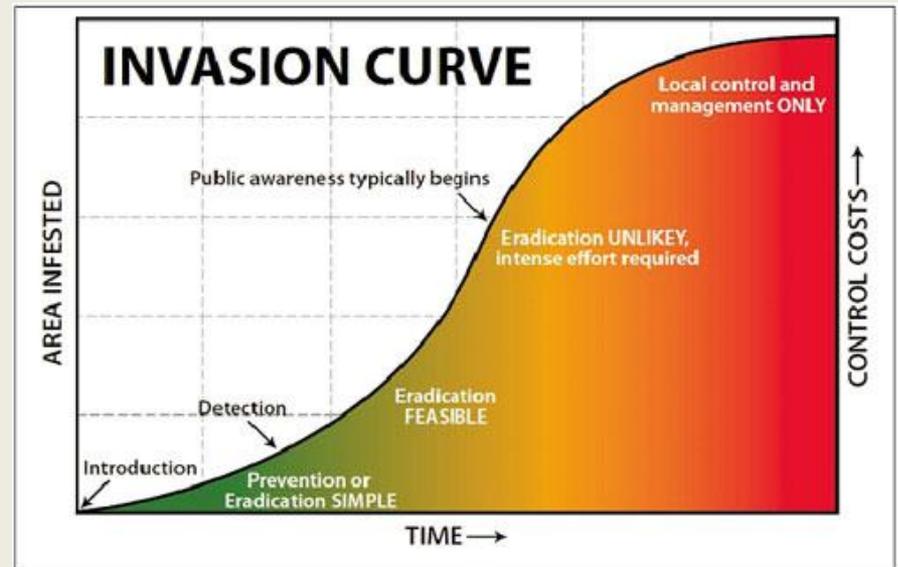
False brome, Pokeweed, Garlic mustard, Butterfly bush (*Buddleia davidii*), Yellow flag iris, Purple loosestrife, Knotweed, Traveler's joy (*Clematis vitalba*), Ivy (all cultivars), Giant hogweed, Himalayan blackberry, Gorse (*Ulex europaeus*), Meadow hawkweed (*Hieracium caespitosum*), Pampas/jubata grass (*Cortaderia jubata* and *C. selloana*), Spotted/Meadow & Diffuse knapweeds, Policeman's helmet

Gold weeds

Shining geranium, Robert geranium, Hedge bindweed (*Calystegia sepium*), Lesser celandine, Spurge laurel, Scot's broom, Yellow archangel (*Lamiastrum galeobdolon*), Purple star thistle (*C. solstitialis* & *C. calcitrapa*), Evergreen blackberry, Norway maple*, Tree-of-heaven*, English holly*

Platinum weeds

Spatulaleaf loosestrife, Large and Small-leaf periwinkle, "Weedy" fennel, Reed canarygrass, Creeping buttercup (*Ranunculus repens*)



Invasive Plants and Wildlife

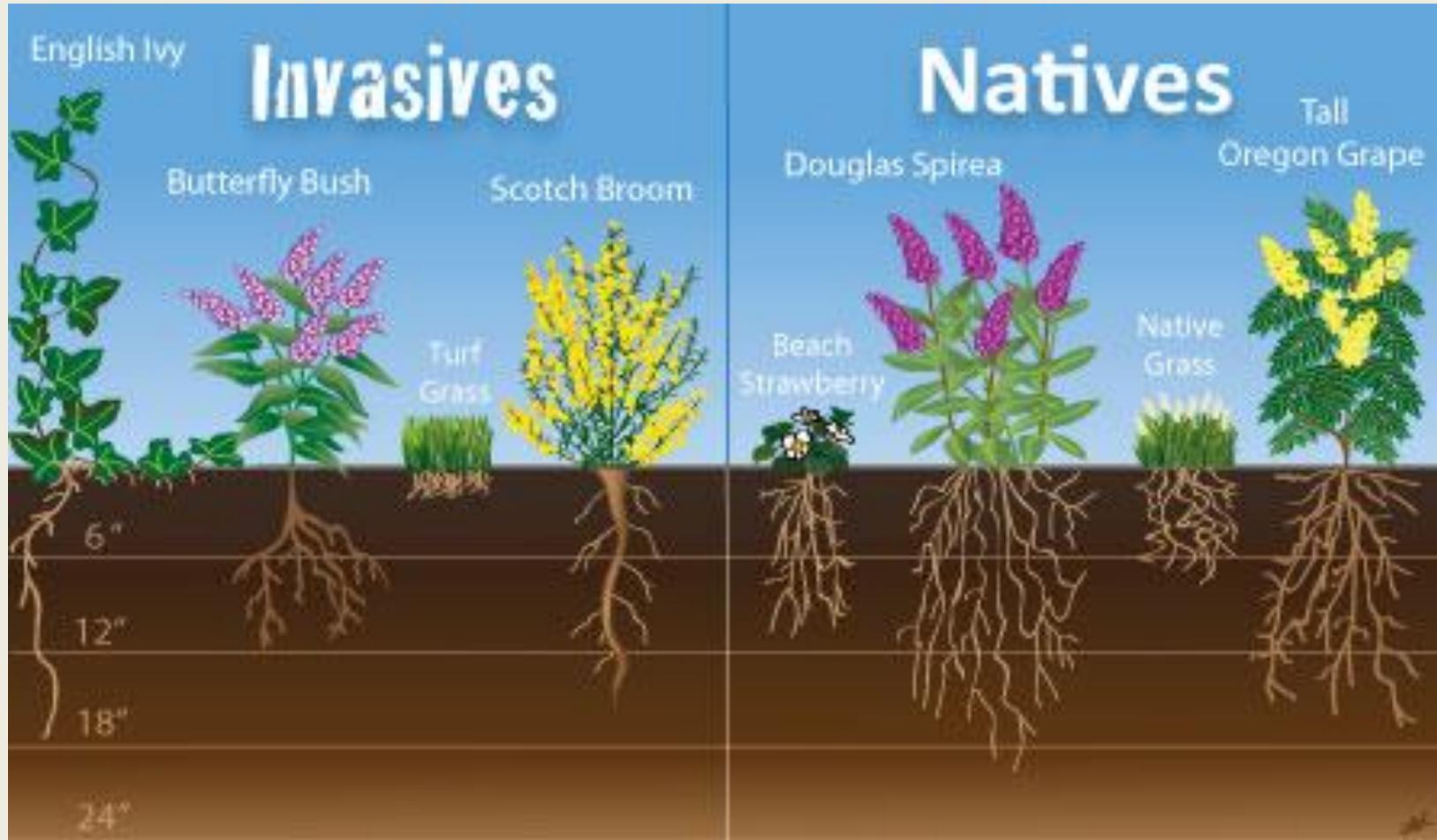


In the US, **only 8 species of arthropods** have ever been seen eating *Melaleuca quinquenervia* (paper-bark tree) in the US – **409 species of arthropods** eat *Melaleuca* where it's native in Australia. (less than 2% as useful in the US)



- Invasive plants = **guaranteed loss of bio-diversity in wildlife**
- Invasives affect wildlife in undesirable and unknown ways

Invasive Plants and Stormwater



2. *Naturescape* with Native Plants



- **Silver = 5% of footprint**
- **Gold = 15% of footprint**
- **Platinum = 50% of footprint**

Why Natives?



- Why plant native plant species?
 - 90% of insects are specialists and rely native plants for survival
 - 96% of terrestrial birds rear young on insects
- Native to where?
- Does all of my landscaping have to be native?



Native Canopy Layers

Flycatcher
Crossbills
Swallows
Hawks
Band-tailed pigeons
Siskins

Owls
Jays
Kiglets
Woodpeckers
Chickadees
Nuthatches

Flycatcher
Goldfinches
Juncos
Hummingbirds
Bushtits

Thrushes Wrens
Towhees
Song sparrows



Overstory Canopy

Understory Canopy

Shrub Layer

Ground Layer

Bird Feeding Behaviors

- Seed and berry eaters
- Ground feeders
- Foliage Gleaners
- Aerial foragers
- Predators



Three Seasons of Nectar



Willamette Valley Natives and Wildlife

TREES

- Vine Maple (17 birds, 3 mammals)
- Pacific Dogwood (20 birds, 10 mammals)
- Chokecherry (35 birds, 4 mammals)
- Garry Oak (24 birds, 10 mammals)

SHRUBS

- Blue Elderberry (30 birds, 4 mammals)
- Red Osier Dogwood (20 birds, 10 mammals)
- Serviceberry (21 birds, 5 mammals)
- Salmonberry (33 birds, 3 mammals)

HERBACEOUS

- Miner's lettuce (12 birds)
- Wood strawberry (13 birds, 3 mammals)
- Red columbine (7 birds, 1 mammal)
- Wood sorrel (9 birds, 1 mammal)
- Slough Sedge (21 birds, 5 mammals)

Source: Portland Plant List

Flycatcher
Crossbills
Swallows
Hawks
Band-tailed pigeons
Siskins

Owls
Jays
Kiglets
Woodpeckers
Chickadees
Nuthatches

Flycatcher
Goldfinches
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Hummingbirds
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Thrushes Wrens
Towhees
Song sparrows



Overstory Canopy

Understory Canopy

Shrub Layer

Ground Layer

Native Hedge Row

What it ISN'T



What it IS



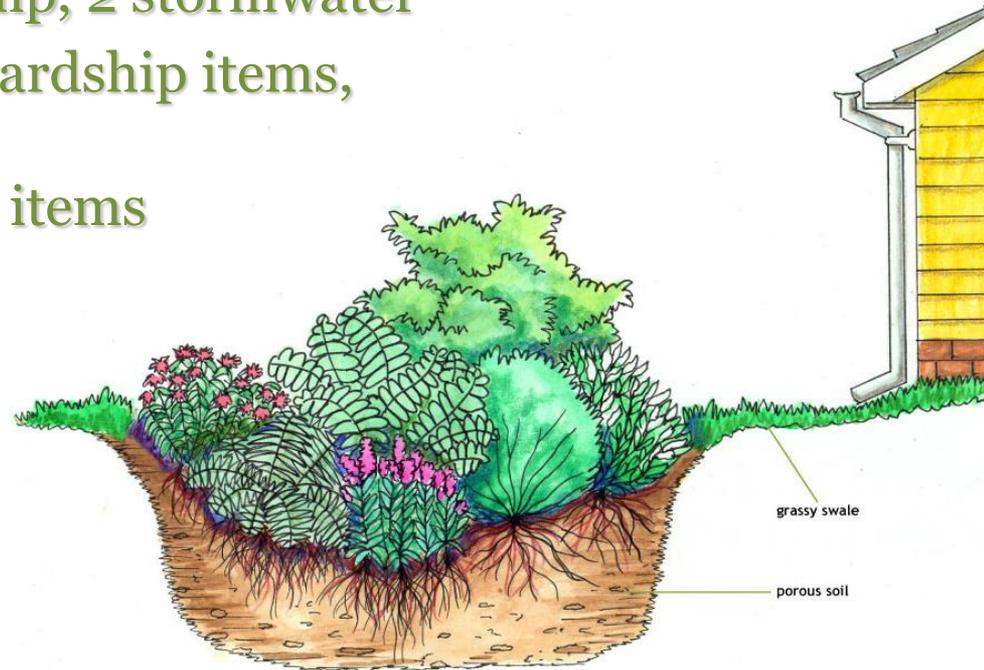
60% of regional bird species nest in the SHRUB layer.
Warblers, sparrows, towhees, and goldfinches
are thicket/hedge nesters

Wildlife Stewardship and Stormwater



Technicians help participants choose which of the menu items are appropriate for their yard -

- **Silver** = 1 Wildlife stewardship, 1 stormwater
- **Gold** = 2 Wildlife stewardship, 2 stormwater
- **Platinum** = 3 Wildlife stewardship items, 3 stormwater items, 2 Education & Volunteerism items



Provide a Water Source



- Features should be flat bottomed, with ½-1 inch of water
- Water should be changed about once per week
- Maintain a clean birdbath for optimal bird health



Dead Snag or Nurse Log

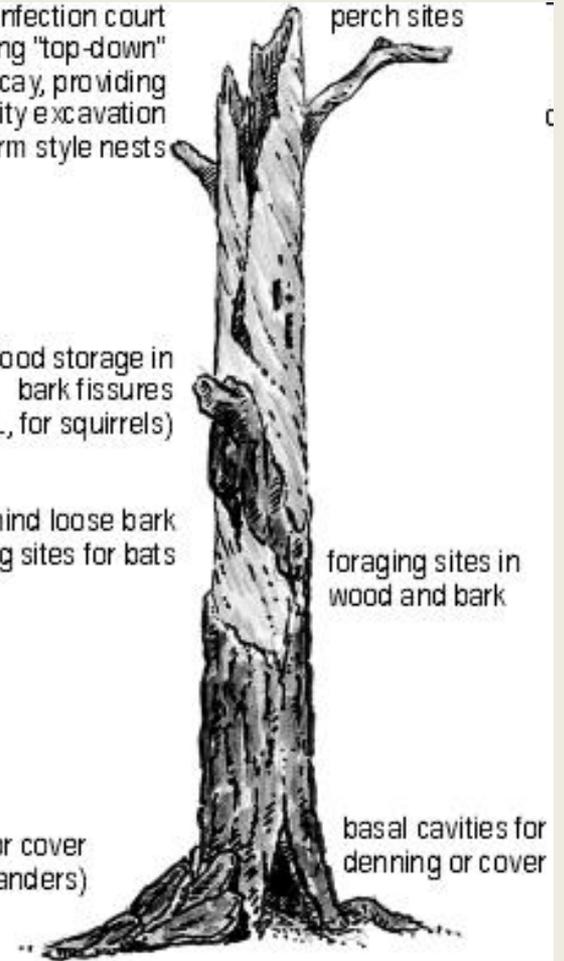


broken tops are an infection court for fungi, enhancing "top-down" gradual tree decay, providing opportunities for cavity excavation and platform style nests

food storage in bark fissures (e.g., for squirrels)

spaces behind loose bark provide roosting sites for bats

shed bark slabs for cover (e.g., for salamanders)



perch sites

foraging sites in wood and bark

basal cavities for denning or cover

Plant for Pollinators - Meadowscape!



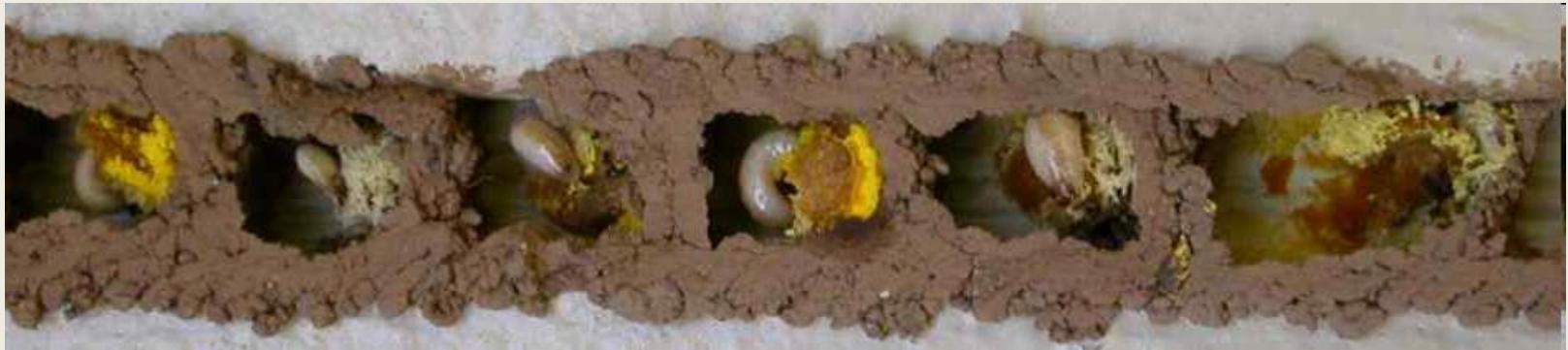
- Diversify your landscape by attracting native pollinators
- Non-aggressive – solitary
- Plan for 3 season blooms



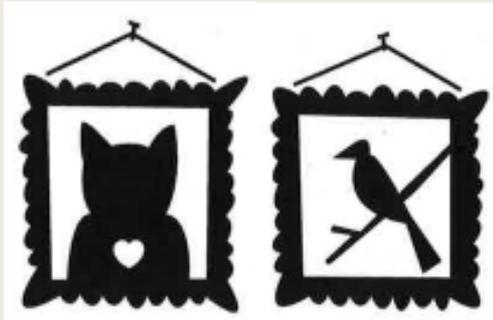
Creating Living Landscapes

- *Achillea millefolium* (common yarrow)
- *Clarkia amoena* (Farewell to Spring)
- *Collinsia grandiflora* (Blue eyed Mary)
- *Elymus glaucus* (Blue Wildrye)
- *Festuca californica* (California fescue)
- *Geum macrophyllum* (large leaf avens)
- *Prunella vulgaris* var. *lanceolata* (heal all)

Nesting Habitat for Native Bees



Hazards - Cats and Wildlife



Hazards – Urban Buildings



- Estimated at +100 million birds
- Night-migrating birds become disoriented by night lights – contributes to window collisions
- Bird Friendly Building Guidelines



Hazards - Maintenance

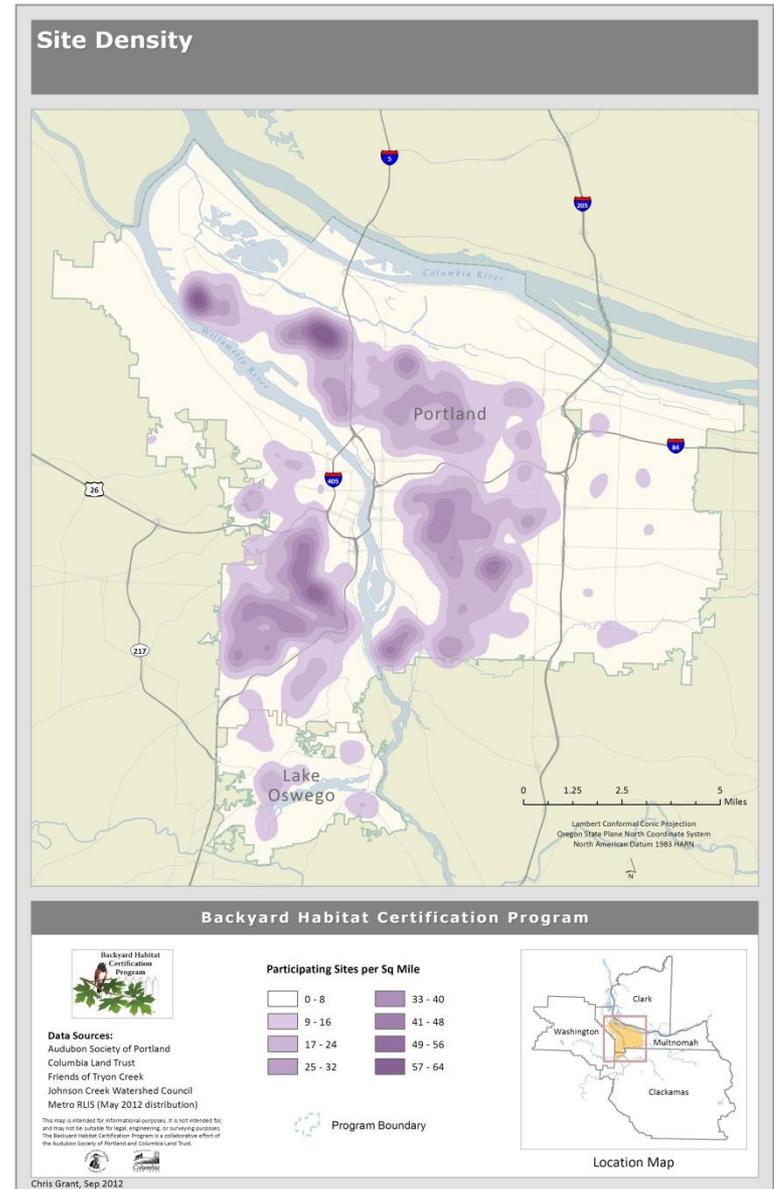


- Ease up on clean-up!
- Leave the Leaves!
- Respect nesting windows



Total Impact

- 2200+ sites enrolled
- Covering over 375 acres
- 800+ certifications
- Strategic outreach results in areas with dense Backyard Habitats = **increased ecological value** (i.e. Baltimore Woods, Overlook, SW Portland)





PSU-led Habitat Study

Moths were collected on 7/26/12 and 8/4/12 using light traps.

Both backyard habitats and conventional yards were surveyed.

Landowners and neighbors participated in a Bioblitz on 8/5/12 to collect and sort the moths (filmed by Oregon Field Guide).

Species richness was calculated.

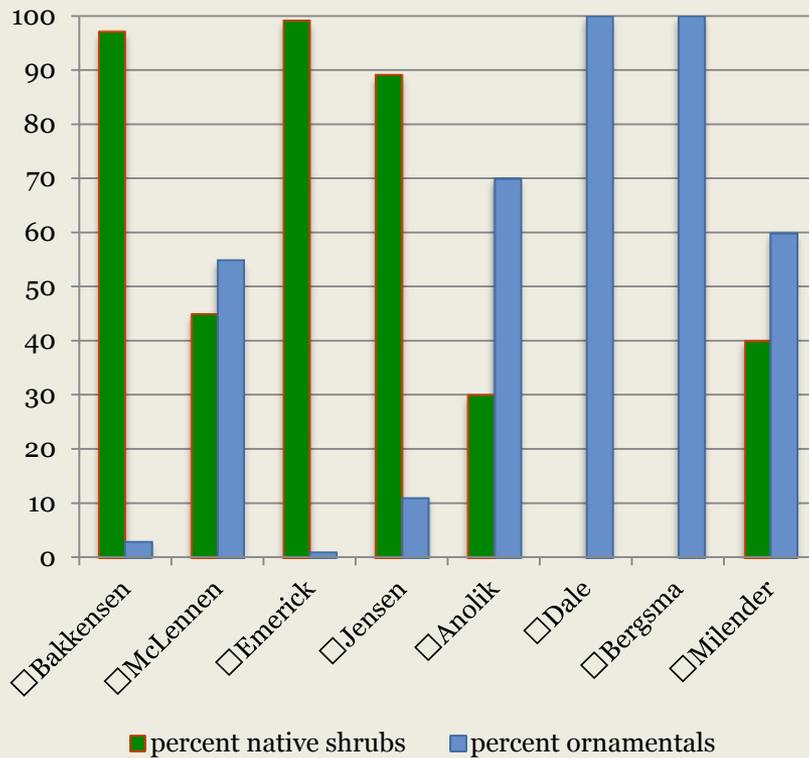


Backyard Bioblitz - Aug 5th, 2012

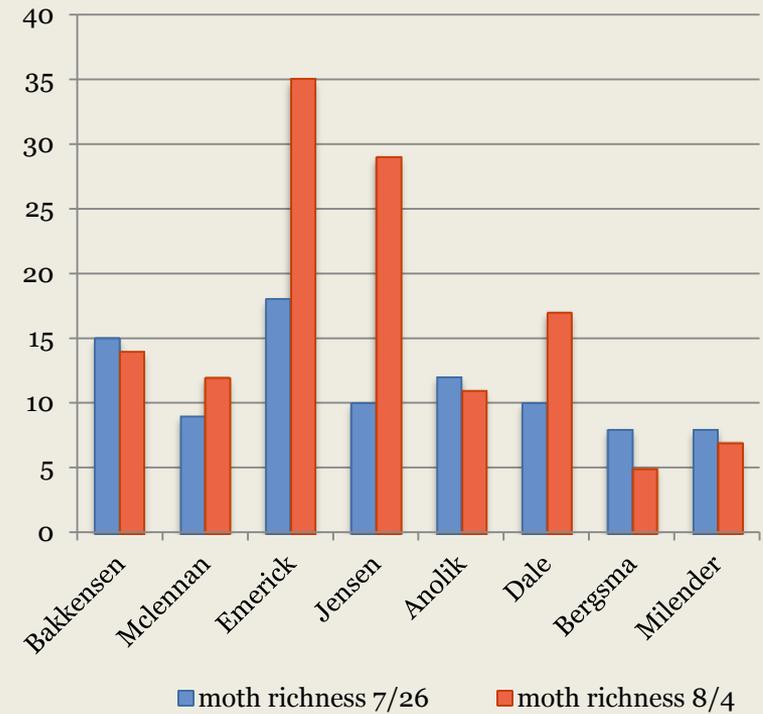
Moth diversity and shrub transects - Hillsdale



Shrub Transect Data



Moth Species Richness



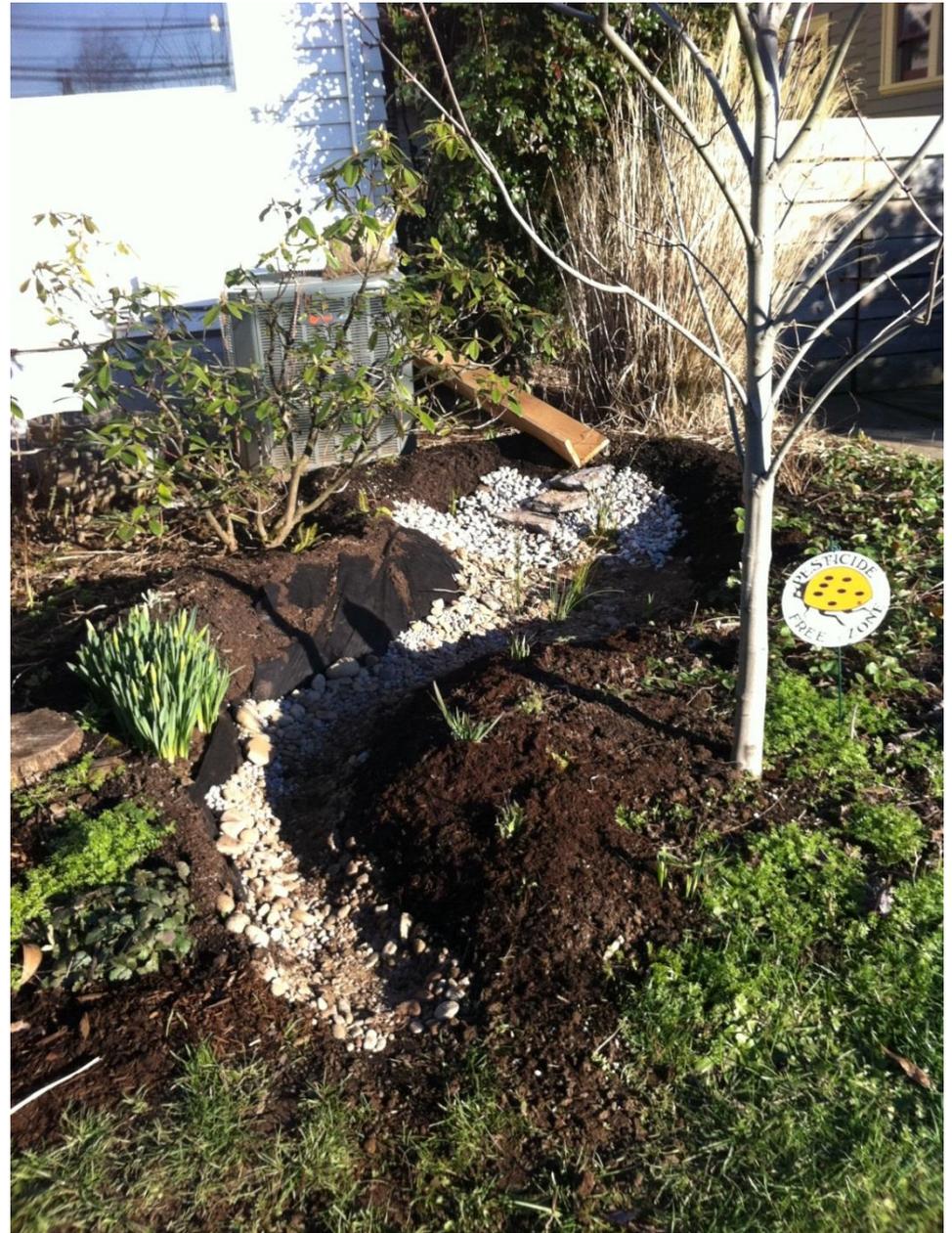
Step 2. Dig the
raingarden
Cost = free



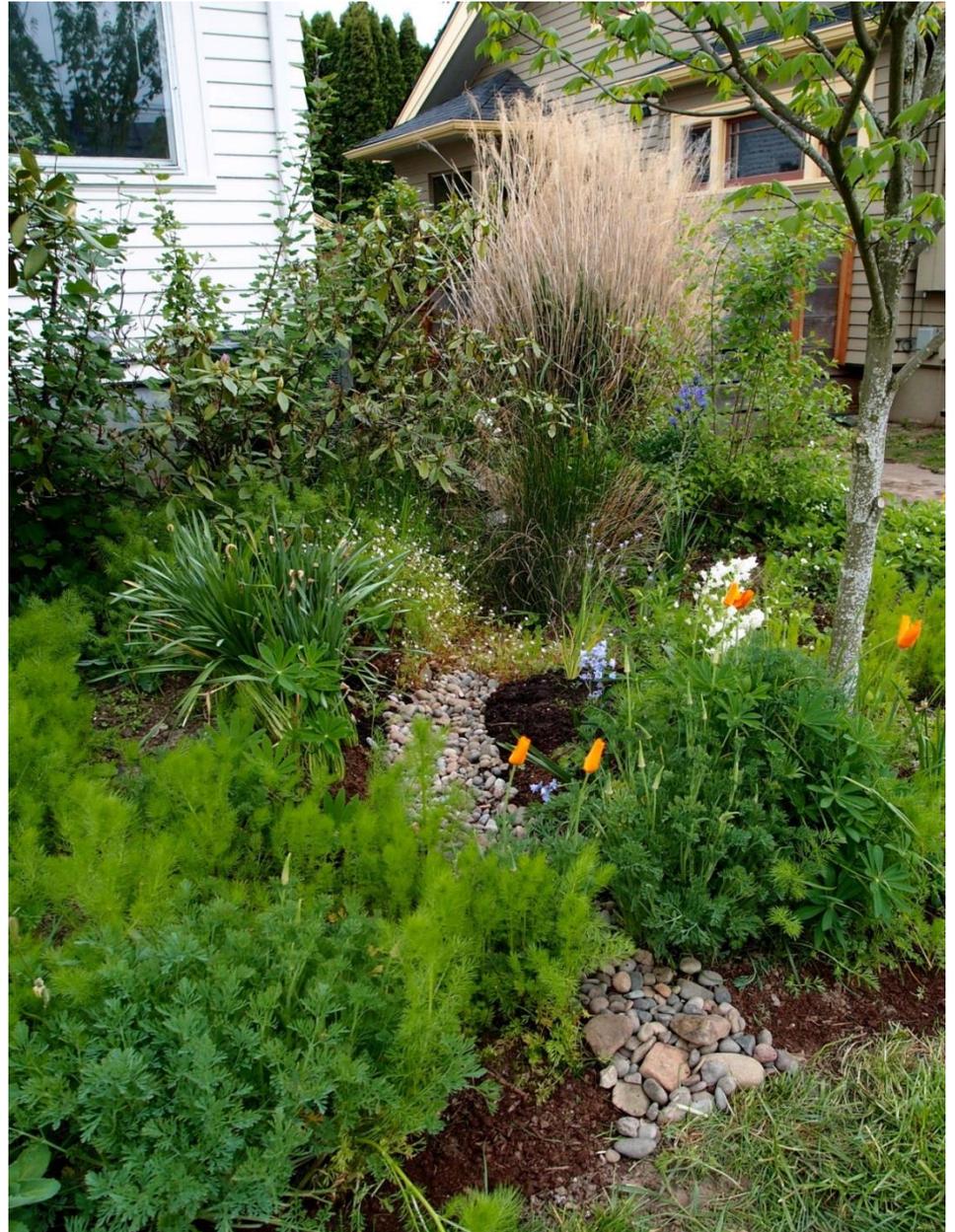
Step 3. Install the raingarden

Costs:

- rock = free from craigslist,
- plants = \$50,
- Compost = \$10
- wood = free,
onsite resource



Step 4.
Enjoy your
raingarden!















Questions?



This project has been a great learning experience, one that perhaps I have obsessed over. This spring has been particularly fun, watching most of the 200 some plants leaf & bloom.

Since you were here last, neighbors were inspired & removed their fence for the view & friendship; probably the greatest compliment. - Gwen

"A year after being Backyard Habitat Certified, we are seeing results. Yesterday it was both Northern Flicker and Downy Woodpeckers . Last week it was Townsend Warbler, Solitary Verio, Towhee, and Varied Thrush" - Dave

