

# Native Plants and Wildlife Stewardship



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*Urban biodiversity  
is not an  
oxymoron.*





# Wildlife in the City



367 species of birds and other wildlife call our region home



# **“We have to raise the bar on our landscapes...”**

*In the past, we have asked one thing of our gardens: that they be pretty. Now they have to support life, sequester carbon, feed pollinators and manage water.”*

– Doug Tallamy,  
University of  
Delaware





**From this...**



# To this...





# Naturescaping – the Criteria



- **Silver** = 5% of footprint, 3/5 layers
- **Gold** = 15% of footprint, 4/5 layers
- **Platinum** = 50% of footprint, 5 layers

# Why Native Plants?

- Why plant native plants for wildlife?
  - 90% of insects are specialists and rely native plants for survival
  - 96% of terrestrial birds rear young on insects
  - 100% of adult amphibians (and most reptiles) are meat eaters – mostly arthropods, also small mammals and fish
- Native to where?
- What about cultivars?





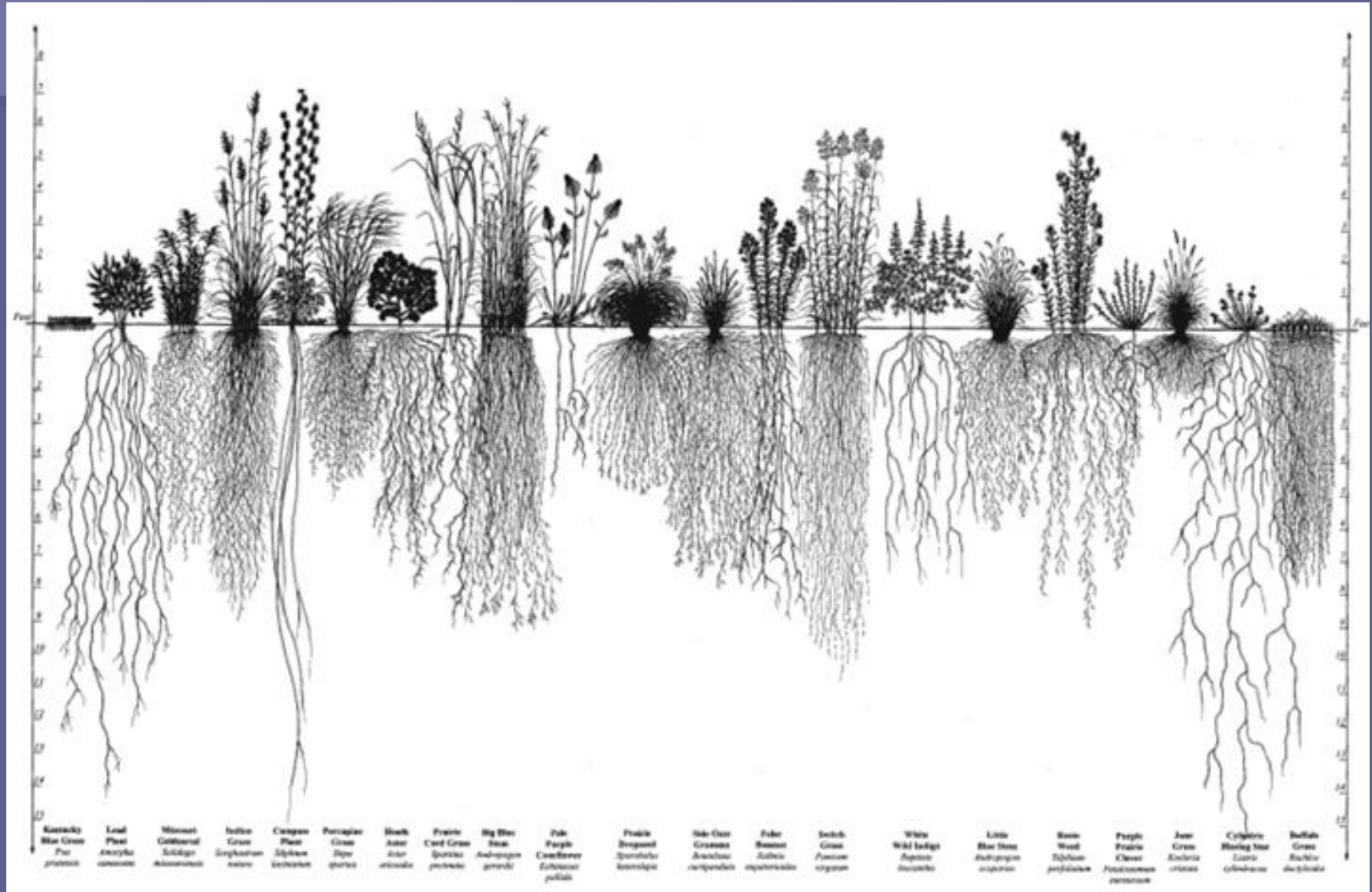
# Why it matters...continued

Melaleuca quinquenervia (paper-bark tree) is native to Australia. There, in its home environment, **409 species of arthropods** eat it. It's aggressively replacing native mangroves in the southern US where **only 8 species of arthropods** have been seen eating it.



Non-native plants =  
**guaranteed loss of  
bio-diversity in  
wildlife**

# Native Plants, Stormwater and Carbon Sequestration





# Planning a Naturescape

Develop a concept plan with contiguous areas of naturescaping that support wildlife and healthy communities.

- 1) Decide on the placement/species of new trees
- 2) Plan the placement/species of shrubs
- 3) Decide on the placement and species of herbaceous layer last

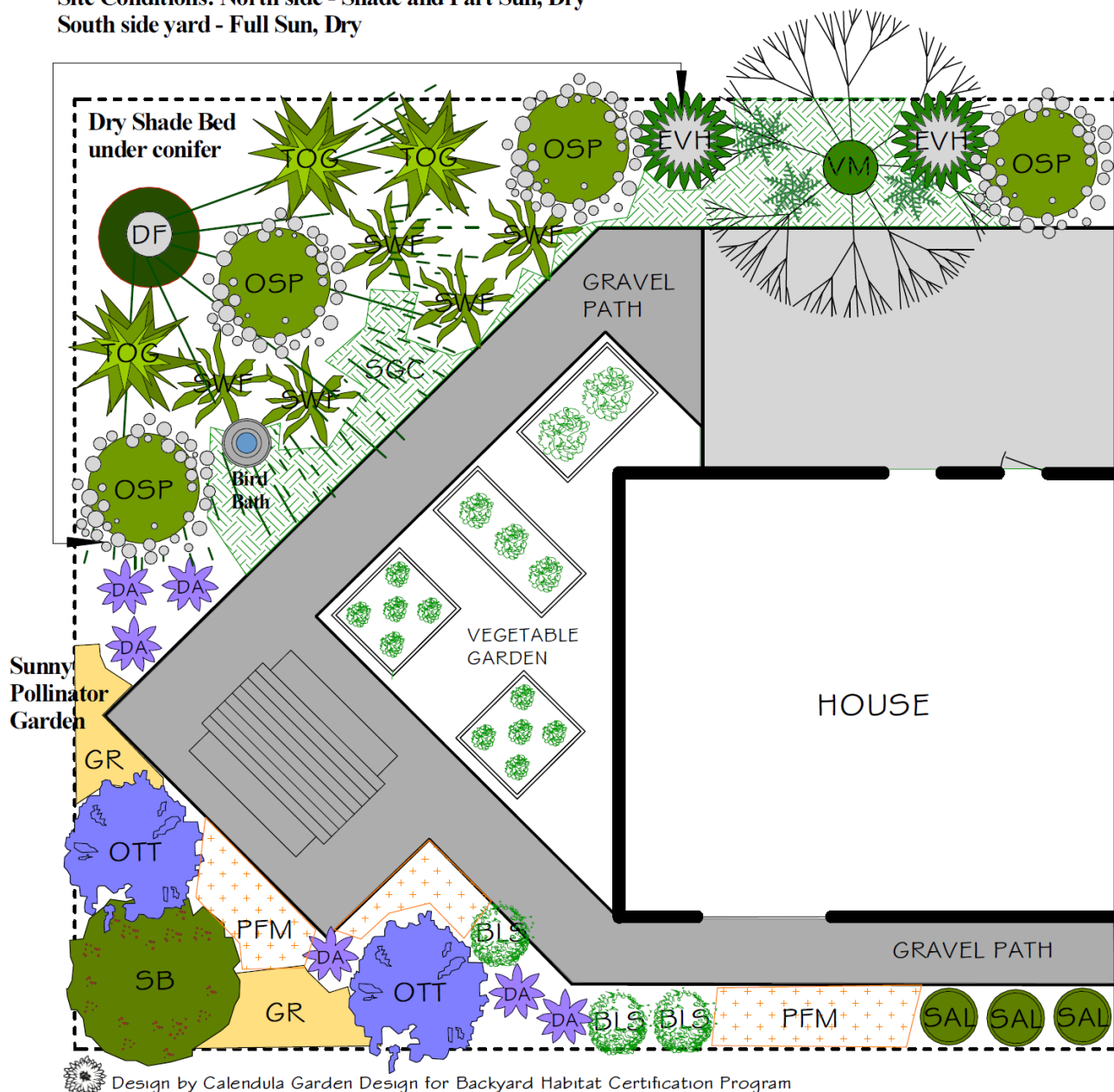
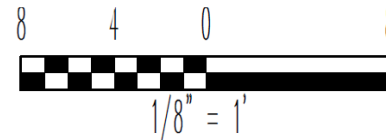


# URBAN HABITAT GARDEN A

## Back Yard with Dry Shade Bed and Sunny Pollinator Garden

Site Conditions: North side - Shade and Part Sun, Dry

South side yard - Full Sun, Dry



### Portland Plant List Natives

PLANT	CODE	SYMBOL
Birch Leaf Spirea	BLS	
Canada Goldenrod	GR	
Douglas Aster	DA	
Douglas Fir - Alternative: Western Red Cedar	DF	
Dull/Cascade Oregon Grape	OG	
Evergreen Huckleberry	EVH	
Oceanspray - Alternative: Mock Orange	OSP	
Oregon Tea Tree	OTT	
Perennial Flower Mix: California Poppy, Common Camas, Western Columbine, Pearly Everlasting, Yarrow	PFM	
Salal	SAL	
Shady Ground Cover Mix: Fringecup, Inside-Out Flower, Redwood Sorrel, Western Starflower	SGC	
Sword Fern	SF	
Tall Oregon Grape	TOG	
Vine Maple - Alternative: Cascara	VM	
Western Serviceberry - Alternative: Mock Orange	SB	

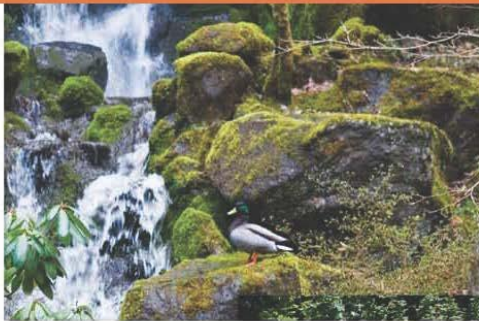


# Diverse Layers = Diverse Birds



# Plant Associations & Grouping

## Portland Plant List



September 2011



Bureau of Planning and Sustainability  
Innovation. Collaboration. Practical Solutions.  
City of Portland, Oregon  
Steve Adams, Director





# Natives and Wildlife Productivity

## 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

# 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



# Sourcing Native Plants

- BHCP Nursery Map
- Neonics: Questions to Ask your Nursery!

## QUESTIONS TO ASK YOUR NURSERY



NORTHWEST CENTER FOR  
ALTERNATIVES TO PESTICIDES

### NEONICOTINOIDS


Scientific studies have shown that a newer class of pesticides, called neonicotinoids (neonics for short), are a major factor in pollinator declines.

Both systemic and persistent, neonics continue to affect bees long after a spray through soil absorption.

Check with your nursery before buying plants to ensure that your bee-friendly flowers aren't killing pollinators.

### QUESTIONS TO ASK

1. Are your plants or seeds treated with neonicotinoids?
2. Do you know which of your suppliers use them?
3. Would you consider removing neonicotinoid applications and treated plants from your shelves?

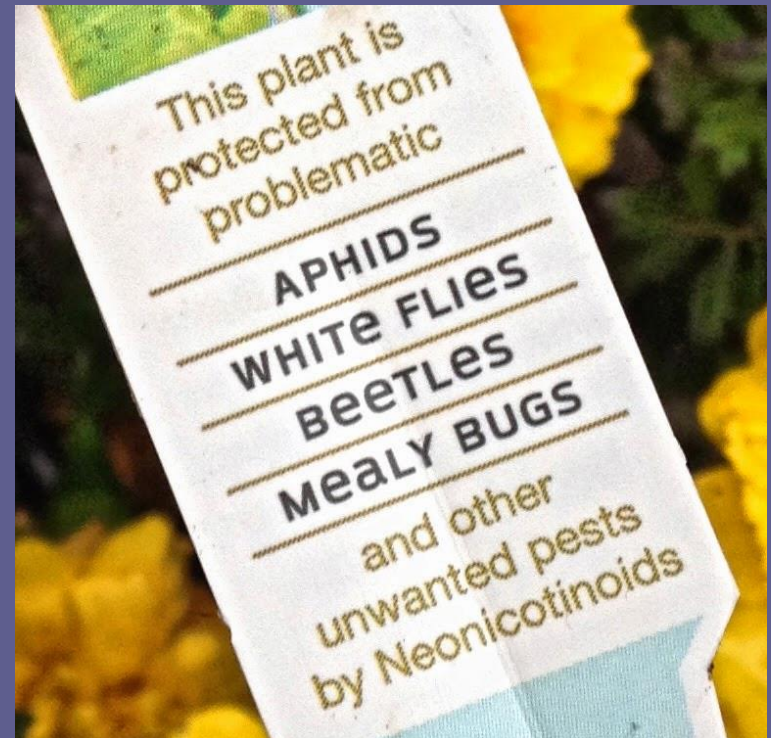


### NEONICOTINOID PESTICIDE ACTIVE INGREDIENTS:

Acetamiprid, Clothianidin,  
Dinotefuran, Imidacloprid,  
Thiacloprid, Thiamethoxam

Is your nursery neonic free? Let us know!  
[INFO@PESTICIDE.ORG](mailto:INFO@PESTICIDE.ORG)

For more information:  
[WWW.PESTICIDE.ORG](http://WWW.PESTICIDE.ORG)



# "Pollinators are essential to our environment and economy"

*Regional Conservation Strategy*

## Ecosystem Services Provided by Pollinators:

- 75% of world's flowering plants for reproduction depend on pollinators
- 25% of all birds and mammals depend on fruits and seeds for their diet from pollinators
- Aprox 1 in 3 mouthfuls of food and drink require pollinators.





# Spring Plants for Pollinators



- Large-leaf Lupin, *Lupinus polyphyllus*
- Red-flowering Currant, *Ribes sanguineum*
- Common yarrow, *Achillea millefolium*
- Western Buttercup, *Ranunculus occidentalis*
- Common camas, *Camas quamash*
- Healall, *Prunella vulgaris* var. *lanceolata*



# Summer Plants for Pollinators



*Aquilegia formosa* (columbine)



*Iris douglasii* (douglas iris)



*Asclepias speciosa* (showy milkweed)



*Wyethia angustifolium* (mules ears)



*Dichelostemma congestum* (oakow)



# Fall Plants for Pollinators



- Common yarrow, *Achillea millefolium* (blooms spring – fall)
- Fireweed, *Chamerion angustifolium*
- Goldenrod, *Solidago canadensis*
- Cusick's Sunflower, *Helianthus cusickii* (not PPL, but great for pollinators)
- California poppy, *Eschscholzia californica* (blooms summer – fall)
- Evening Primrose, *Oenothera biennis*

# Learning MORE!!



- Open Garden's Project
- EMSWCD Workshops
- Native Plant Society – Hikes and Meetings
- Garden, garden, garden!
- Visit Local Nurseries
- Mock Cert Trainings – RSVP TODAY!



# Wildlife Stewardship

## Menu of Wildlife Options

*Complete 1 for silver, 2 for gold, 3 for platinum:*

- **Wildlife water feature**
- **Nest boxes**
- **Cats safe at home**
- **Pollinator nesting habitat**
- **Snags & nurse logs**
- **Reduce outdoor lighting**
- **Reduce bird window collision**
- **Native pollinator meadow**



**Nest Boxes**



**Provide Water**



**Cats Safe at Home**

# Provide a Water Source

- Features should be flat bottomed, with ½-1 inch of water
- Water should be changed regularly
- Keep it clean for optimal bird health



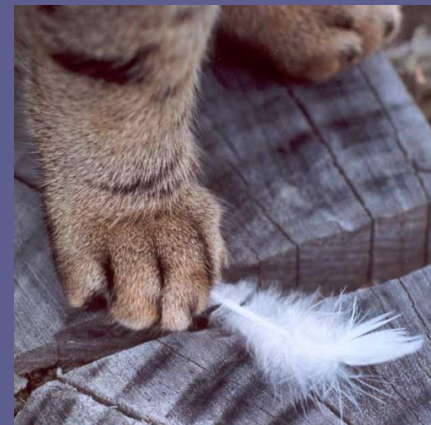


# Nest Boxes

- Appropriate for native birds
  - Cornell website
  - No perch!
- Clean it annually
- Be aware of cats

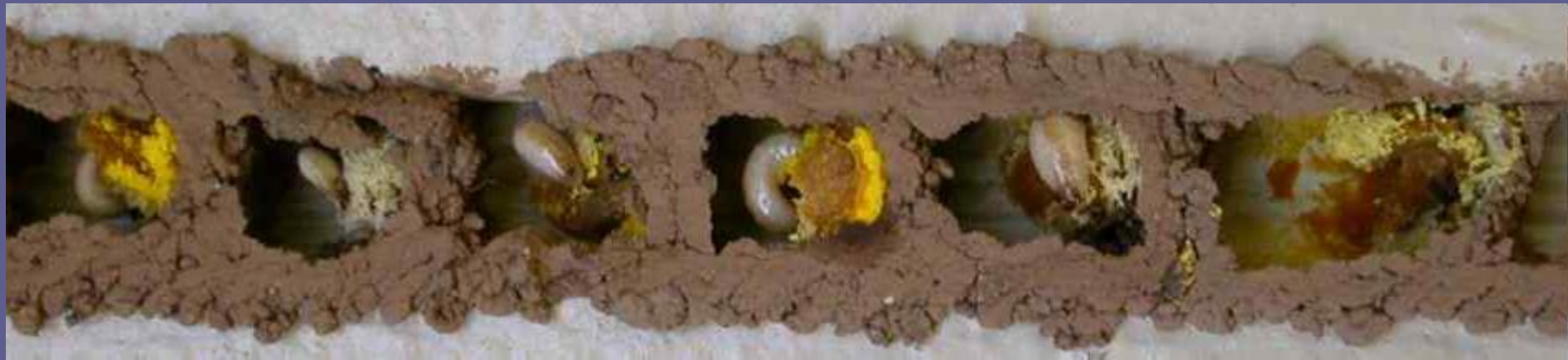


# Cats Safe at Home

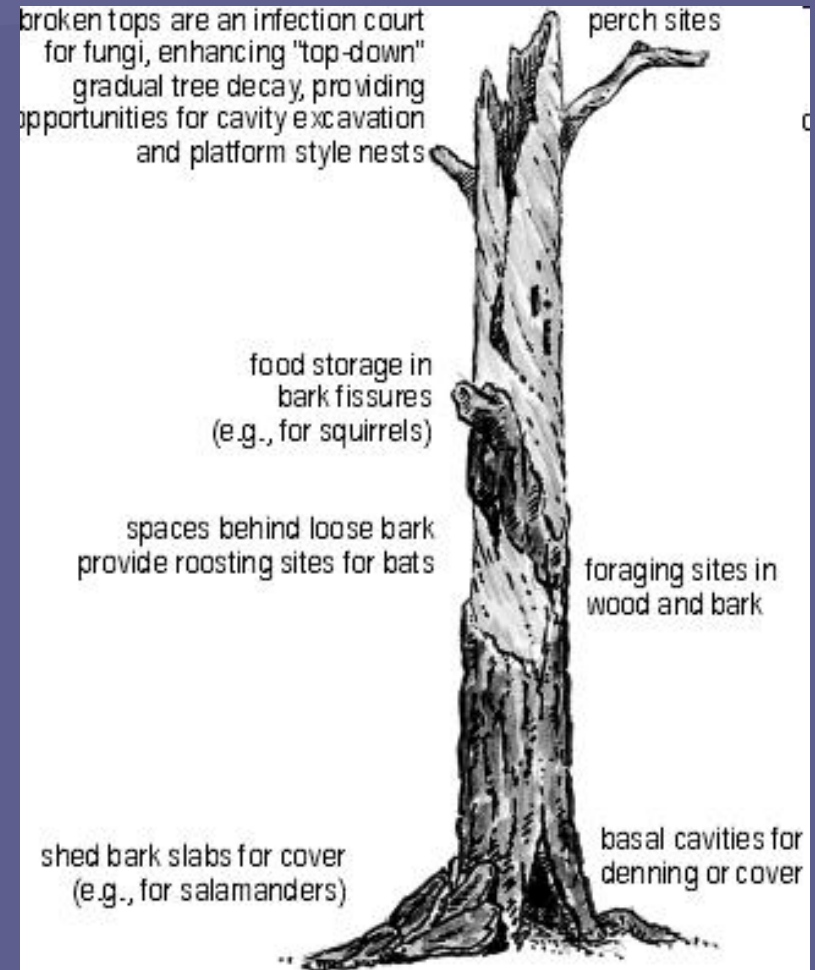




# Nesting Habitat for Native Bees



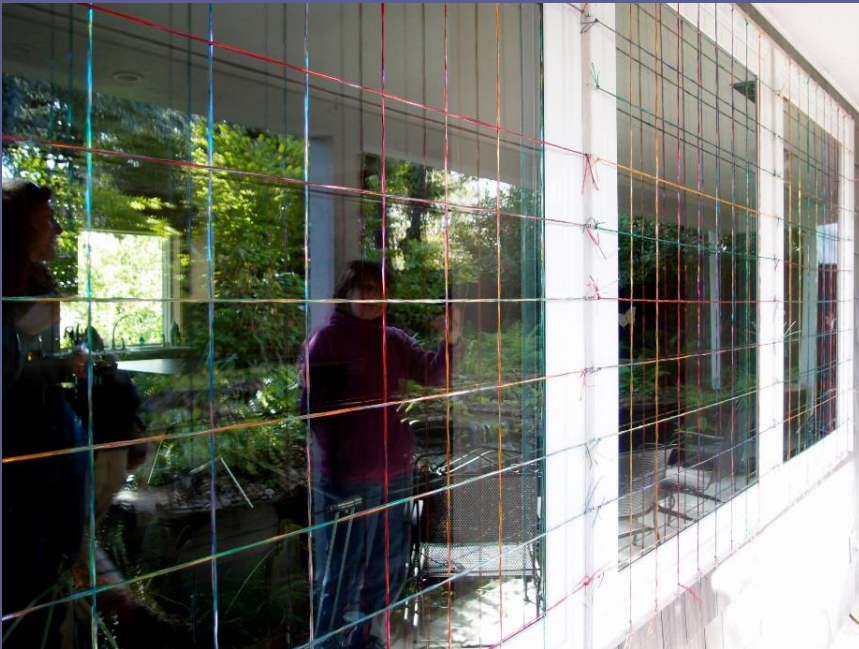
# Snags, Nurse Logs, Brush Piles





# Bird Friendly Buildings

- +100 million birds die in strikes
- Night-migrating birds and fish are disoriented by night lights – leads to window collisions
- Bird Friendly Building Guidelines and Lights Out Portland



# Pollinator Meadowscape

- Varied bloom times throughout season
- Bare ground/Rock
- Yellow and white flower preference
- Flower Consistency





# Resources



- BHCP Online Resource Library
- Your Volunteer Manual
- BHCP Landscape Plans
- Meadowscaping Handbook
- Portland Plant List
- Metro Brochure



# Do-it-Yourself, \$60 Rain garden

Step 1.  
Design it  
Cost = free





## Step 2.

Dig the basin –  
wide and flat,  
generally  
sloping away  
from your  
house

Cost = free





### Step 3.

Add compost and native plants

Costs:

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





Step 4.  
Enjoy your  
raingarden!

























# Questions?



***"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***



***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***

