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 on 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?
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
Diverse Layers = Diverse Birds

Image courtesy of WA Dept of Fish and Wildlife, Landscaping for Wildlife by Russe Link
(adapted for BHCP)
Plant Associations & Grouping

Portland Plant List

September 2011
# Natives and Wildlife Productivity

## Herbs
- **Miner’s lettuce**: 12 birds, 3 mammals
- **Wood strawberry**: 13 birds, 3 mammals
- **Red columbine**: 7 birds, 1 mammal
- **Wood sorrel**: 9 birds, 1 mammal
- **Slough Sedge**: 21 birds, 5 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

## Trees
- **Vine Maple**: 17 birds, 3 mammals
- **Pacific Dogwood**: 20 birds, 10 mammals
- **Chokecherry**: 35 birds, 4 mammals
- **Garry Oak**: 24 birds, 10 mammals
- **Pacific Dogwood**: 20 birds, 10 mammals
- **Chokecherry**: 35 birds, 4 mammals
- **Garry Oak**: 24 birds, 10 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**

**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, Dinofuran, Imidacloprid, Thiacloprid, Thiamethoxam

Is your nursery neonics free? Let us know!
INFO@PESTICIDE.ORG
For more information:
WWW.PESTICIDE.ORG

This plant is protected from problematic
APHIDS
WHITE FLIES
BEETLES
MEALY BUGS
and other unwanted pests by Neonicotinoids
“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 Current, *Ribes sanguineum*
- Common yarrow, *Achillea millefolium*
- Western Buttercup, *Ranunculus occidentalis*
- Common camas, *Camass quamash*
- Healall, *Prunella vulgaris var. lanceolata*
Summer Plants for Pollinators

Aquilegia formosa (columbine)

Asclepias speciosa (showy milkweed)

Wyethia angustifolia (mules ears)

Iris douglasii (douglas iris)

Dichelostemma congestum (ookow)

Photos by Wikipedia, google images + MGW
Fall Plants for Pollinators

- Common yarrow, *Achillea millefolium* (blooms spring – fall)
- Fireweed, *Chamerion angustifolium*
- Goldenrod, *Solidago candensis*
- 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!
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 $\frac{1}{2}$-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

I KEEP MY CATS SAFE at HOME
CatsSafeAtHome.org
Nesting Habitat for Native Bees
Snags, Nurse Logs, Brush Piles

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

foraging sites in wood and bark

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

basal cavities for denning or cover
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

Lights Out Portland
Save Energy • Save Lives • See Stars
Take the Pledge audubonportland.org
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 Raingarden

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