Value of Native Plants in the Landscape

Lynda Boyer

Heritage Seedlings Inc.

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Outline

- Loss of Biodiversity
- Benefits of Natives in Landscape I Know
- Others?
- Work Heritage is Conducting
- NPSO Projects?
- Building Bridges and Partnerships

What is a Native Plant?

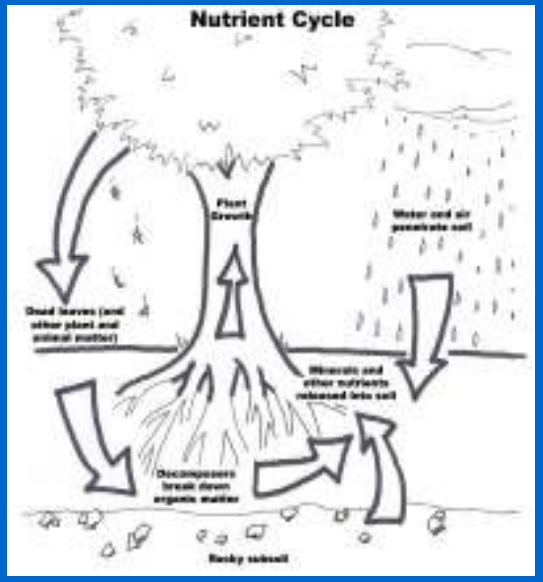
- Plant species that occur naturally (evolved) in a particular region, state, ecosystem, and habitat without direct or indirect human action

  (Federal Native Plant Conservation Committee, 1994)

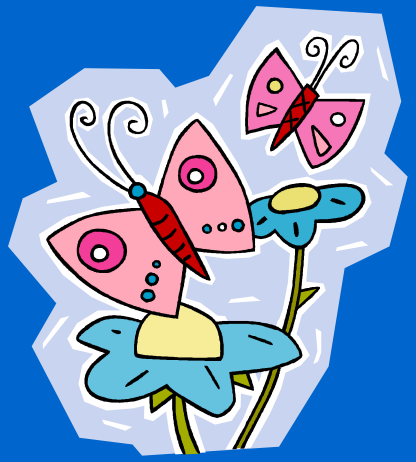
Willamette Valley Larkspur

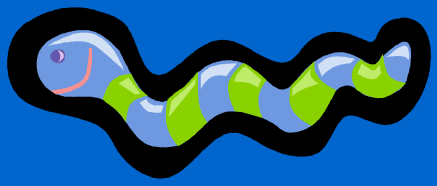
Tansy ragwort - Europe

Most Compelling Value
BIODIVERSITY!
Plant/Animal connection – the glue of ecosystems

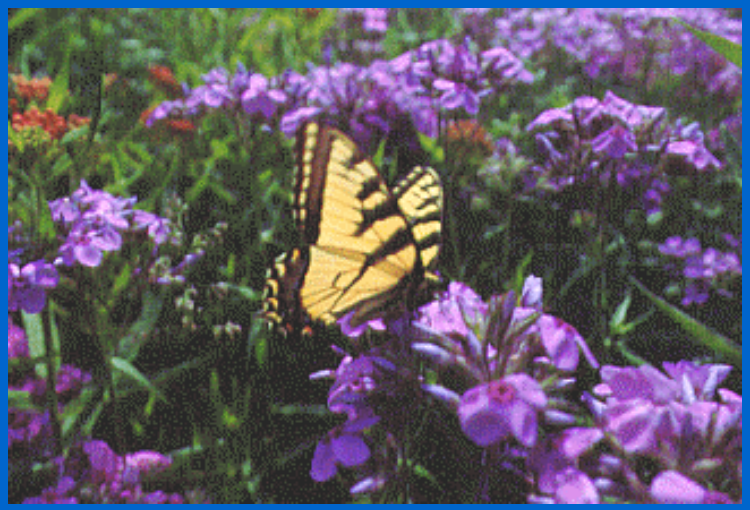


Nutrient Cycling





Redundancy allows many species to do the same job



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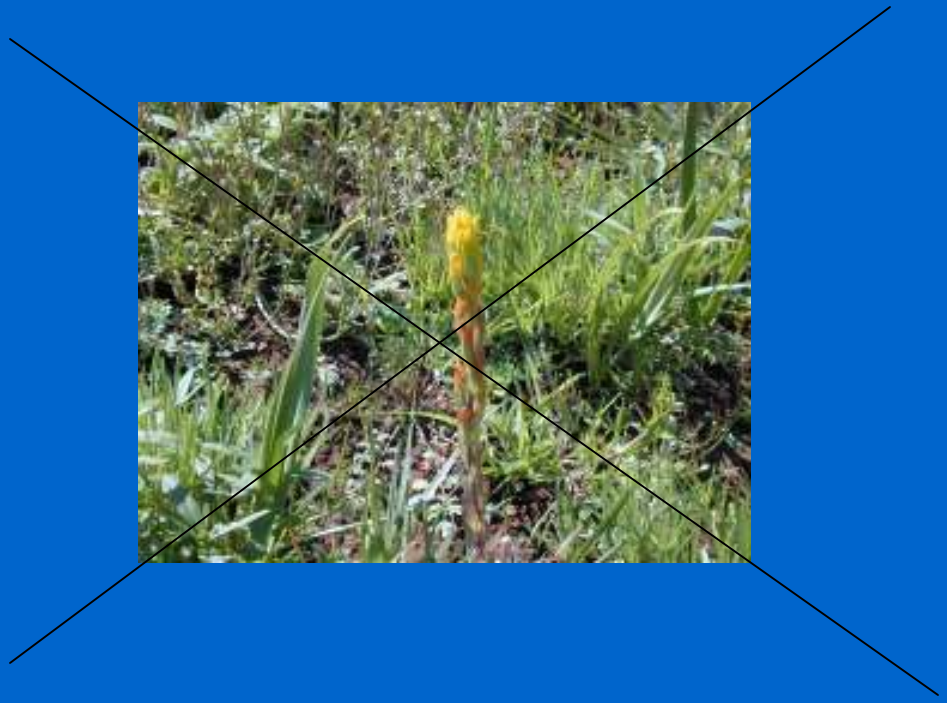
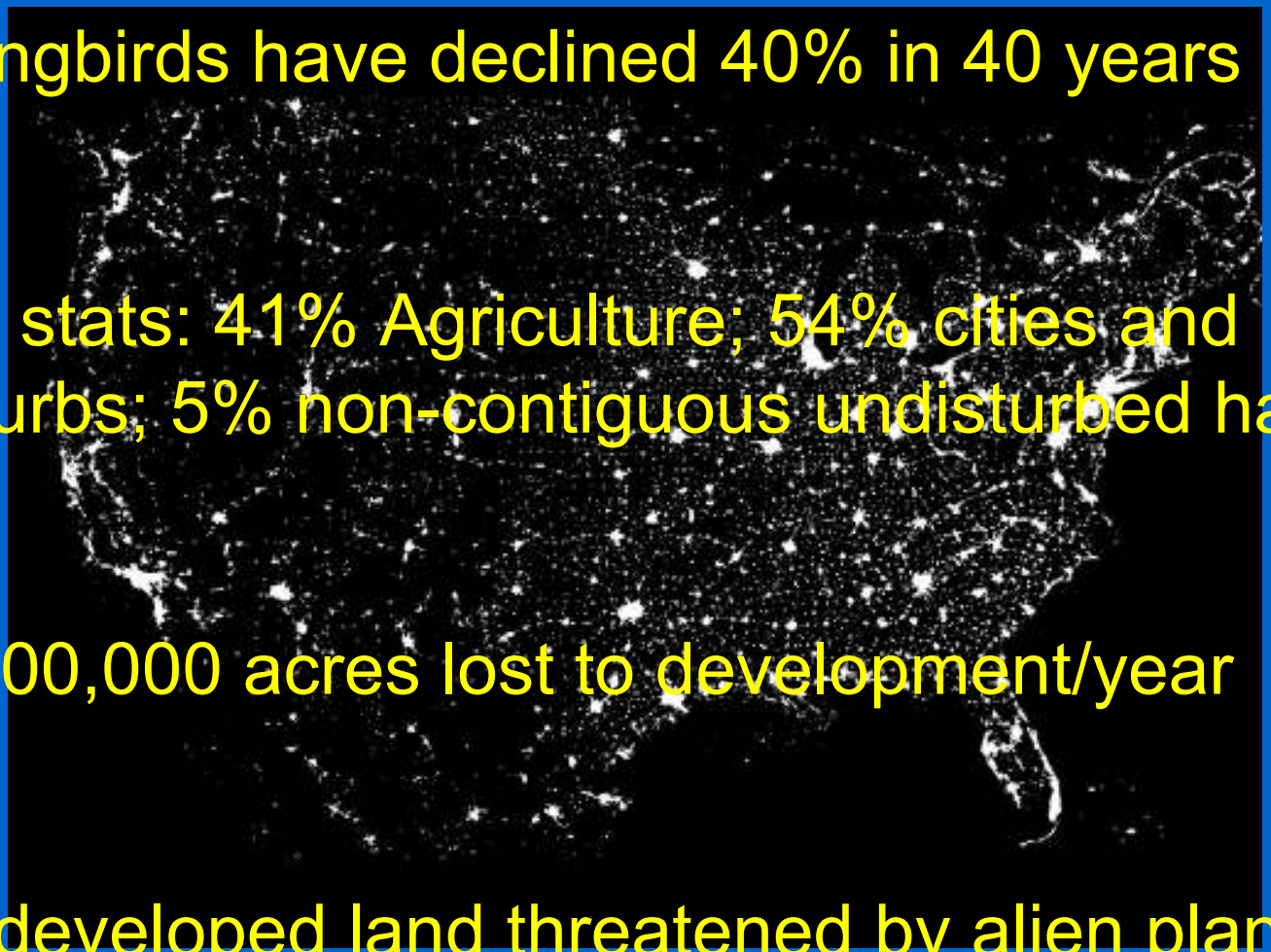
Golden paintbrush – extirpated in Oregon



Suburbia –
potential haven for biodiversity?
FACTS



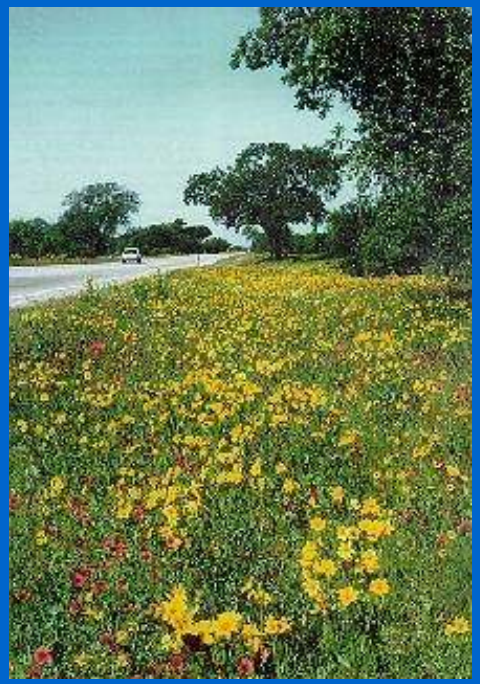
*Songbirds have declined 40% in 40 years

*US stats: 41% Agriculture; 54% cities and suburbs; 5% non-contiguous undisturbed habitat

*2,000,000 acres lost to development/year

*Undeveloped land threatened by alien plants

1:1 Relationship
Land Loss = Species Loss

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http://www.willametteexplorer.info/

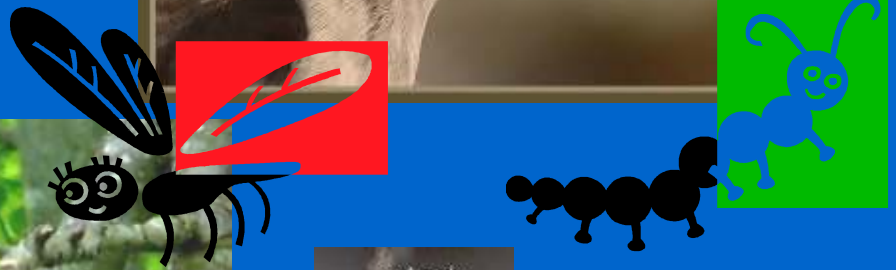
Will we grow up or out?????

↑Native Plant Diversity

↑Insect Diversity

↑Bird Diversity

96% of terrestrial birds rear young on insects



Non-native plants, especially invasive species are JUNK FOOD!

More Benefits

Native Garden

Locally adapted

No need for: fertilizer, water, pesticides

Traditional landscaping plants

NOT! – Need lots of all three

YUM!

YUCK!

Cotoneaster and Butterfly bush – invade wetlands

Low Maintenance

Saves $$$

Improved Air Quality

Hi Maintenance

Costs $$$$

Pollution by lawn equipment

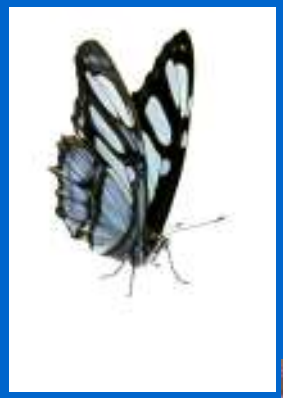
COLORS

SHAPES

TEXTURES

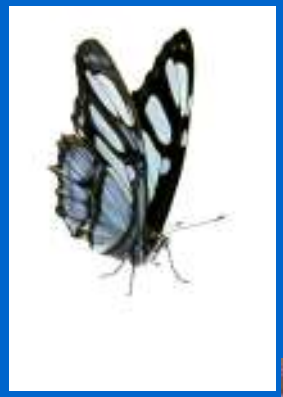
BORING!

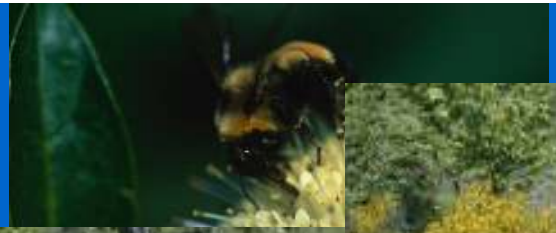
FOOD: INSECTS, NECTAR, HOST PLANTS



NESTING SITES

COVER FROM PREDATORS










Using Native Plants
builds support for protection of special places

TNC Yellow Island Reserve

Bufford Park, Eugene

Using Only Non-Native Plants

creates even more distance between ourselves and the natural world

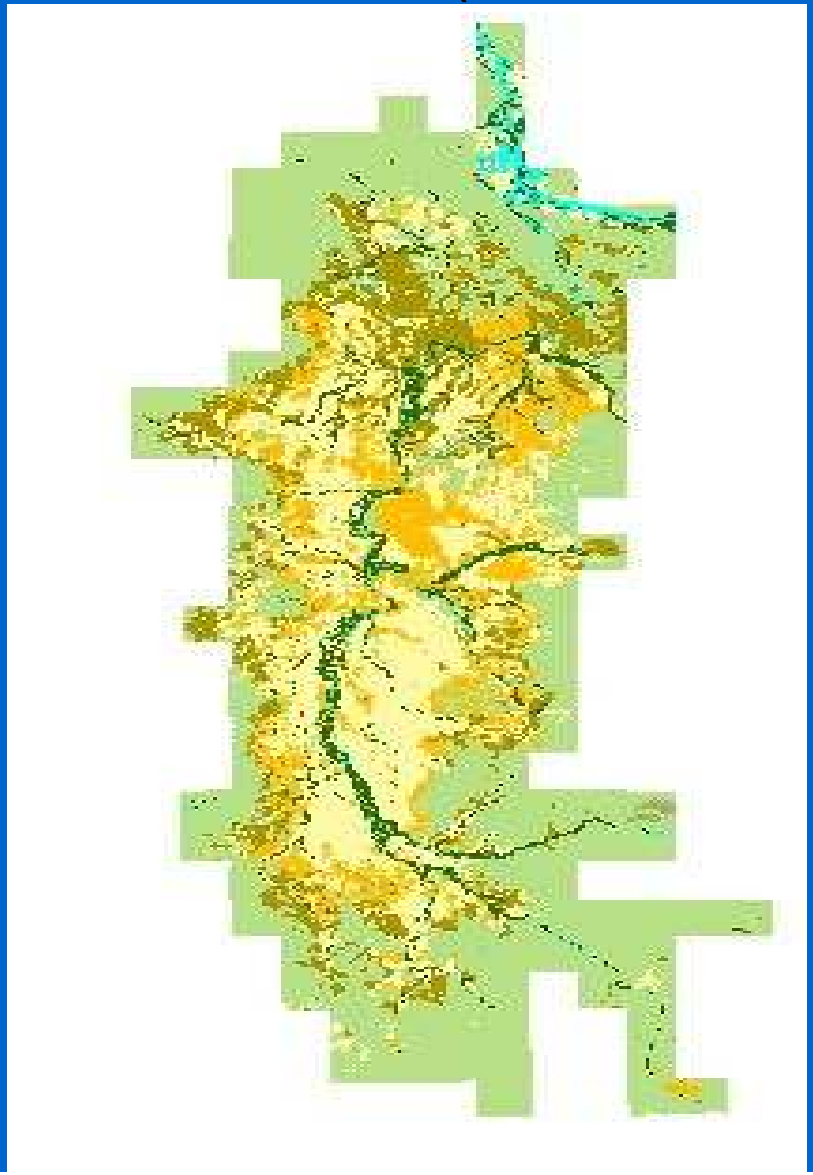
Have I listed all values or are there others?

Native Plant and Habitat Work at Heritage Seedlings

- Restoration of over 200 acres of upland prairie and oak habitat on two farms
  - Partners for Fish and Wildlife Program
  - Landowner Incentive Program Grant
  - Private Stewardship Grant
- Restoration of over 50 acres of riparian habitat on three farms
  - Conservation Reserve Enhancement Program (NRCS)

Vegetation of the Willamette Valley circa 1850 (ONHP 2004)

KEY
*Orange – savanna
*Yellow – prairie
*Dark green – riparian forest
*Olive – woodland
*Light green – conifer



Oak woodlands and savannas have been reduced by an estimated 80% (Defenders of Wildlife)
Prairies have been reduced to less than 1% their historic range making them one of the most endangered of North American ecosystems (ONHP 1983)

Loss of Prairie Species

FIRE!

- Controls woody vegetation
- Reduces thatch
- Stimulates growth
- Creates room for annual forbs

THANKS!

Native plant/native pollinator connection

Native honeybees small

Many native flowers small

Loss of native bees = loss of native plants

Native bumble bees large

Cannot pollinate small flowered natives

Joseph St Oaks Restoration

- 11 Species of Native Bees
- 1 Species a specialist on Cinquifoil

Native Bunchgrass Prairie

room for wildflowers = great nesting and food!

THIS

VS.

☺

THIS

Heavily grazed by cattle

Fallow sheep pasture

☹

Native Plant Propagation for seed and plugs

- Since 2002, 110 species of prairie, riparian, and woodland grasses and forbs
- Propagation of listed species for restoration use
- Contract seed production for City of Eugene and TNC
- Plug production of 22 native Willamette Valley prairie species (more in the works)
- West Coast Trial of America Beauties Program

Seed Production

Rare Plant Production

Willamette Valley Larkspur

Willamette Daisy

Nelson’s checkermallow

Plug Production

American Beauties Program

- Pilot Program New England
- Partnership between 2 nurseries, National Wildlife Federation, local garden centers
- Spring 2006
- Native Plant kiosk with
  - four focus gardens
  - informational plant tags
  - educational poster
  - on-line information

Willamette Valley Butterfly Garden

[species choices from N. American Butterfly Association – Eugene Chapter]

Trees and Shrubs

Deciduous Trees

Bigleaf maple (Acer macrophyllum) [l]
Chokecherry (Prunus emarginata) [l] [n]
Oregon white oak (Quercus garryana) [l]
Red alder (Alnus rubra) [l]

Medium to tall shrubs

Mock orange (Philadelphus lewisii) [n]
Nutka rose (Rosa nutkana) [l] [n]
Ocean spray (Holodiscus discolor) [l] [n]
Redstem ceanothus (Ceanothus sanguineum) [l]
Scouler's willow (Salix scouleriana) [l] [n]

Herbaceous Perennials

Medium to Tall Perennials and Annuals

Barestem lomatium (Lomatium nudicaule) [n]
Bigleaf lupine (Lupinus polyphyllus) [l] [n]
Balsamroot (Balsamorhiza deltoidea [n]
Bleeding heart (Dicentra Formosa) [l]
Cow parsnip (Heracleum lanatum) [n]
Douglas' aster (Aster subspicatus) [n]
Fernleaf lomatium (Lomatium dissectum) [l] [n]
Fireweed (Epilobium angustifolium) [n]
Goldenrod (Solidago canadensis) [n]
Gumweed (Grindelia inegrifolia) [n]
Hall's aster (Aster hallii) [n]
Large-flowered collomia (Collomia grandiflora) [n]
Meadow checkermallow (Sidalcea campestris) [l] [n]
Mugwort (Artemesia douglasii)[l] [n]
Mule's ear (Wyethia angustifolia) [n]
Oregon sunshine (Eriophyllum lanatum) [n]
Oregon geranium (Geranium oreganum) [n]
Oregon iris (Iris tenax) [n]
Pearly everlasting (Anaphalis margaritacea) [l] [n]
Popcorn flower (Plagiobothyrus figuratus) [n]
Rose checkermallow (Sidalcea virgata) [h] [n]
Self-heal (Prunella vulgaris var lanceolata] [n]
Slender cinquefoil (Potentilla gracilis) [h]
Showy milkweed (Asclepias specioa) [h] [n]
Showy tarweed (Madia elegans) [n]
Spanish clover (Lotus purshianus) [l]
Streambank lupine (Lupinus rivularis) [l] [n]
Tall camas (Camassia leichtlinii [n]
Tigerlily (Lilium columbianum) [n]
Yarrow (Achillea millefolium)[l] [n]

Low Perennials and annuals
American vetch (Vicia americana) [l] [n]
Broadleaf strawberry (Fragaria virginiana) [l] [n]
California poppy (Eschscholtzia californica) [n]
Cat's ears (Calochortus tolmeia) [n]
Cutleaf microseris (Microseris laciniata) [n]
Early blue violet (Viola adunca)[h]
Monkey flower (Mimulus guttatus) [l]
Rosy plectritis (Plectritis congesta) [n]
Slim-leaf onion (Allium amplectens) [n]
Spring-gold (Lomatium utriculatum) [n]
Stream violet (Viola glabella) [l]
Western buttercup (Ranunculus occdentalis) [n]
Wintercress (Barbarea orthocerus) [l] [n]

Ornamental Grasses and Sedges
Medium to Tall Grasses
Blue wildrye (Elymus glaucus)
California oatgrass (Danthonia californica)
Roemers fescue (Festuca roemeri)
Tufted hairgrass (Deschampsia cespitosa)

Low Grasses
California oatgrass (Danthonia californica)
Dense sedge (Carex densa)
Dewey's sedge (Carex dewyana)
Foothill sedge (Carex tumulicola)
Junegrass (Koeleria macrantha)
Pine bluegrass (Poa secunda)
Spiked bentgrass (Agrostis exarata)

Invasive Species Partnership

- Owner, Mark Krautmann, building partnership between OAN, TNC and local municipalities
- Goals
  - Encourage growers to stop production of invasive species
  - Encourage growers to grow sterile cultivars, non-aggressive cultivars, and native plants
  - Encourage municipalities to create voluntary system that promotes the use of the right plant in the right place
  - Oregonian garden section features 1 invasive species/week and non-aggressive alternative plants

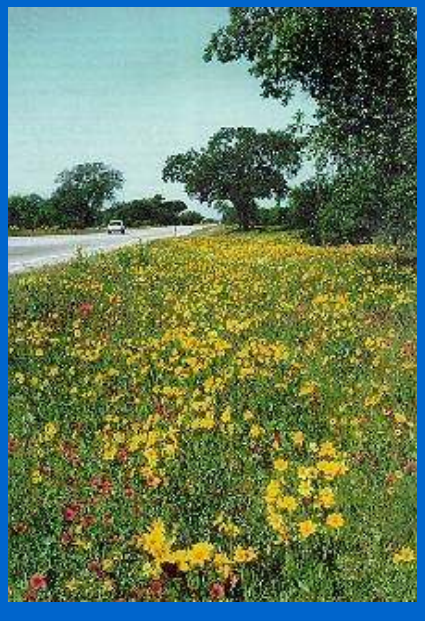
Building Awareness and Support for Native Plants

- Encourage local governments to support the use of native plants in new developments, park lands, open spaces where appropriate
- Don't just use them, but educate the public as to their role in the landscape
- Municipalities currently using native plants
  - Lake Oswego, McMinnvelle, Eugene
  - Others?

Encourage Use of Natives on Roadsides

From this…..

To this!



60K lbs of Native Seed Annually

Benefits Noted by DOT's

- Reduction in maintenance costs
- Increased wild habitat
- Improved erosion control
  - use of hardy perennials key!
- Enhanced aesthetics
- Stronger partnerships with natural resource professionals and volunteers
- Demonstrates commitment to environment

Local Outreach Opportunity

preservation/enhancement of native understory plants at Bush Pasture Park

Nine-leaf lomatium

Fern-leaved lomatium

Prairie violet

Possible NPSO and Student Partnership

- Fencing plant populations for seed collection
- Collection seed
- Propagating and planting new areas
- Invasive species removal

Increasing Involvement by Private Landowners

- Landowner's guides for restoring Oregon's endangered habitats
  - Most endangered habitats are on private land
  - ODWF, USFW, Defenders of Wildlife
- Biodiversity Partnership
  - Conservation priority areas
  - Defenders of Wildlife, TNC, ONHP
- Willamette Partnership
  - Development mitigation at the ecosystem level
  - Leaders in conservation, urban planning, business, industry, agriculture

CONCLUSION

What role do you see for the local chapter and state wide????

- ADVOCACY BY ACTION
- Possible partnerships between NPSO and others are endless
- NPSO + Audubon
- NPSO + Xerces (bug people)
- NPSO + Students
- NPSO + Local governments