

Volume 10, Issue 1-2013
January-February 2013

Northwest Native Plant Journal

A Monthly Web Magazine

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This vintage tray circa 1920-1930 is made of a dark wood completely covered with butterfly wings and overlayed with glass.

Feature Articles

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About this Journal

This Journal was created under the direction of Wally Hansen – a dedicated Grower, Aficionado and Passionate Lover of Northwest Native Plants. We honor him by continuing his dream.

Just as is our website, this Journal is not ‘commercial.’ Our goals are:

- A** — To generate interest, even passion, concerning the magnificent Native Plants of the Pacific Northwest.
- B** — To help you create your own Native Plant Gardens, large or small, for home or work.
- C** — To help you propagate and “grow on” those species that interest you the most.
- D** — To inform both Home Gardeners and interested Professionals of many disciplines concerning trends and news items from my little corner of the world.
- E** — To help the reader enjoy native plants more by understanding the historical and cultural role of native plants (i.e.—use by Native Americans, pioneers, early botanists, etc.).



On the Cover:

Western Redbud, *Cercis orbiculata*

Formerly known as *Cercis occidentalis*, Western Redbud is a fine deciduous shrub that favors dry, sunny areas. A true native beauty, it graces the landscape from the Pacific coast to Utah, in USDA zones 6-10.

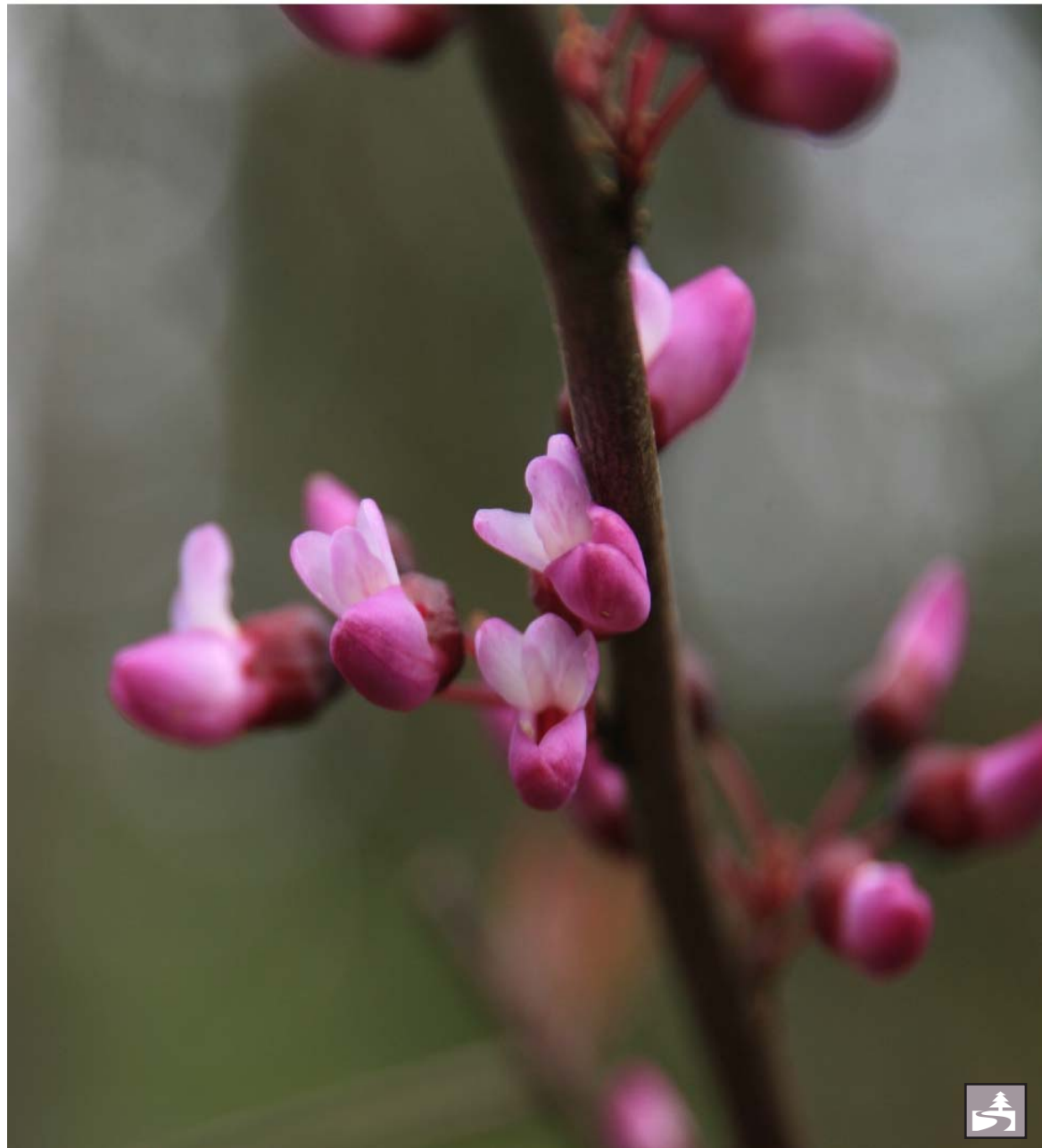
It usually develops multiple stems with an open form, to 8' wide. In spring, brilliant magenta flowers like sweet peas burst forth even before the shiny heart-shaped leaves are open. The leaves are light green but darken as they mature. In higher elevations, they often turn gold or red as fall approaches.

Reddish brown seed pods about 3 inches long ripen and the pods are thin and brittle. They persist through the winter months.

The flowers, buds, seed pods and seeds are all edible – just picture those glorious blossoms tossed in a salad or strewn across a chocolate cake!

Twigs are fine for basketry and make beautiful reddish brown dye.

Western Redbud is also symbiotic with nitrogen fixing bacteria, and improves the soil for its neighbours.



January/February in the native garden

Pearly bits of wisdom and just plain common sense

1 – If needed, trim roses now. This is the time to adjust the shape or size while the plants are just ready to break dormancy.

2 – Check garden tools. Clean, sharpen, replace handles, whatever maintenance needs to be done. While you are anticipating the spring garden, give the tools you will be using some extra love. Paint handles your favorite color, add a design, put an eyehook in the handle for hanging. Then turn your attention to a great storage space for them. A large bucket of sand with a bit of oil mixed in is a great place for garden tools. Rinse off the dirt and stick the business end in the bucket for storage. Rust begone!

3 – Have your soil tested. Your county extension office will have a list of places that test, often for free or low cost.

Plant trees and deciduous shrubs.

4 – Monitor Rhododendron, Salal (*Gaultheria shallon*) and Huckleberries (*Vaccinium*) for root weevils. Wally wrote this back in 2000:

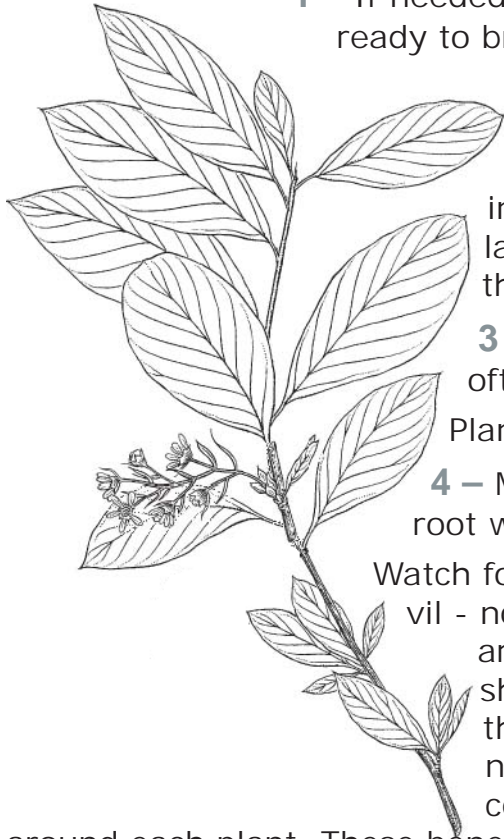
Watch for neat square notches in the leaves. This is caused by the insect form of the root weevil - notched leaves may be unsightly but not seriously damaged. - The real trouble-makers are the grubs that hatch from the eggs that the flies deposit in the soil at the base of the shrub. These nasty little varmints eat up the roots and may "do in" the plant. Orthene is the best spray for the fly in July and August. To go after the grubs, I suggest beneficial nematodes when the soil is 50 degrees or warmer. They can be purchased in packages, contained on small sponges. Put the sponge in water, stir and pour about one quart

around each plant. These beneficial nematodes eat up the grubs.

More about these pests--Oregon State University published a paper titled:

"Speak No Weevil: What Rhododendron Growers Said About Their Root Weevil Management." Authors R.L. Rosetta and S.E. Svenson give details of a very interesting study done in 1998.

www.extension.oregonstate.edu/catalog/html/sr/sr1065-e/07.pdf



Mystery species puzzle



Test your knowledge of native species--identify this butterfly. The reward is simple but very satisfying: You will be included in our list of Official Native Species Detectives.

Send me an email (nwplants@gmail.com) with the correct botanical name of this butterfly.

Good luck!

P.S. Do you have native flora or fauna you'd like to identify? Email it to us and we'll show it here on our Mystery Plant Puzzle page.

Official Plant Detectives

Jerry Murray
Sabrina Kis
Carol Hiler
Mike Burns
Nancy Whitehead
Pat Opdyke
Luke Kishpaugh
Dave Whitehead
Claudia @ the
gardener's choice



Wildlife Corner

Out back with the animals

The joint is jumpin'! Squirrels, all four, are hitting the diner on a regular basis. And birds galore! Little bitty ones, middle-sized, and the jays are still with us. They watch us put out the grub and raise the alarm. News spreads fast and before you know it, it's a real jamboree.

I've changed things up and so far it's working. The jays and squirrels go after the corn and peanuts and somebody is eating the apples. They take some of the black oil sunflower seeds as well. The al fresco area now has these items and a special mix that has some dried peanut butter balls about the size of a pea.

The bird bath I was using as a feeder now has water in it. The bowl is so shallow, the water is less than 2 inches deep. One of the middle sized birds took a bath in it this afternoon, splashing water every which way.

Beneath the eaves of the big deck are the feeders Mom got for her holiday gift, the smaller one has a few peanuts in it. The taller one had sunflower seeds but I topped it off today with a special mix for finches and other little song birds. I put up a new thistle feeder that has holes on all sides and small wooden dowels for perches beside each hole.

When I was pouring the finch seed, some of it spilled on the deck so I spread it out a little bit, hoping the birds will become braver so I can get some photos of them. Maggie thinks the bird seed is pretty good but I'm afraid it will make her gassy. We learned these little Bostons tend to have that problem after we adopted her. She's doing much better since we upped her fresh fruit and veggies but don't want to take any chances. It's incredible that such a smell can come from such a little dog.

I picked up the thistle feeder and the finch seed at a new little place called Everything Birds here in Salem on 13th Street. Very nice lady and some totally gorgeous birds. Small selection of wildlife stuff but worth a visit. Look them up--they're on Facebook.

This little bird was happy to show me his profile but when I went for face front he turned tail. Shy or just proud of his tailfeathers?



Theme gardens: "Now there's an idea!"

A new series of articles for 2013

Our calendar this year features twelve different theme gardens, one for each month:

January - Zen Garden

February - Butterfly Garden

March - Faery Garden

April - Rain Garden

May - Edible Garden

June - Moon Garden

July - Patriot Garden

August - Rock Garden

September - Pond Garden

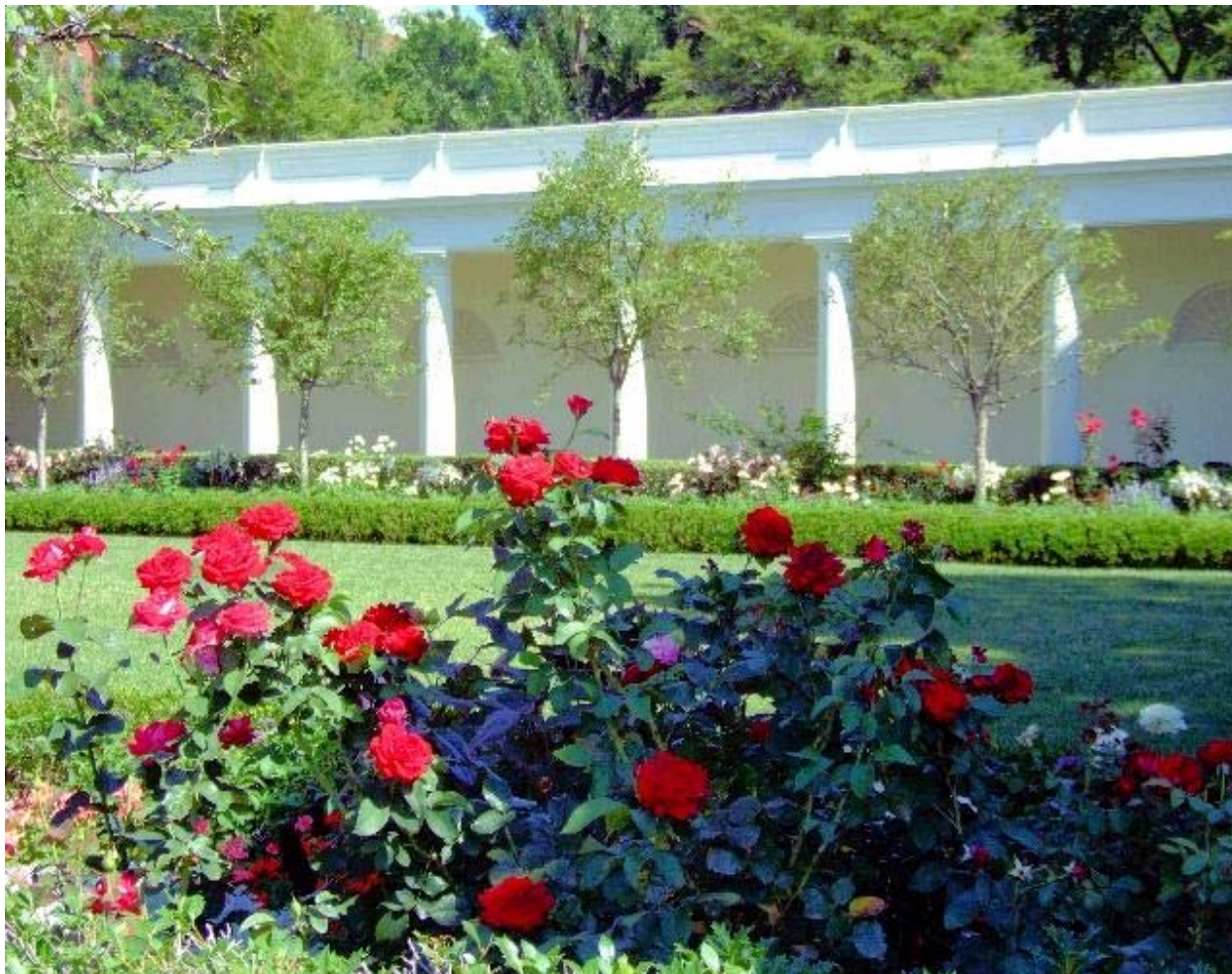
October - Tea Garden

November - Hummingbird Garden

December - Secret Garden

In addition to the theme ideas presented in the calendar, a companion article is planned for the NW Native Plant Journal with expanded information, suggested plants and ways to make each garden your own personal, unique space.

But first, let's paint a broader understanding of gardens with themes.



White House Rose Garden. Photo credit: Donna Spiewak

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Theme gardens, continued

Theme gardens, or purpose-driven gardens, use personality to bring “zing” back into outdoor spaces. Theme gardens can pique a child’s interest in gardening. The most well-known theme garden in the United States is the Rose Garden at the White House.

Your garden theme can be a secret, a personal theme, something that touches your heart, but there is no law that you must disclose your private thoughts. You can have a ‘romance’ garden but you may personally think of it as ‘remembering Mark.’ And you are not limited to one theme—you can have several and they can overlap.

Often gardeners have themes that they may be aware of only subliminally. If when you’re in a gardening store you think, “oh, that’s pretty, I think I’ll buy one,” then that’s not much of a theme. If, however, you think, “That’s pretty, but it’s not native — think I’ll pass,” then you’ve got a theme going: native plants.

Themes:

Types of plants (such as roses, herbs, and even vegetables)

Colors

Shapes

Wildlife you wish to attract (butterflies, honeybees, birds, frogs)

A country

An historical period

An ethnic group

Nature specific--clouds, or lightening or dew.

A place

A person

An idea



This is part of a garden with a tropical island theme. Grassy plants and vivid colors lend a relaxed, carefree feeling.

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Theme gardens, continued

Literature

A story

Traveling

A family member

A hobby

The alphabet

Peace

Sensory Garden -- plants to feel, hear, smell, taste. Quaking Aspen, Hairy Manzanita, Oxalis, Vanilla Leaf (*Achlys triphylla*). (See www.nwf.org/News-and-Magazines/National-Wildlife/Gardening/Archives/2001/Creating-a-Garden-of-Sensory-Delights.aspx)

An animal

"Eat a Rainbow"

A favorite recipe (salsa, potpourri, pizza)

A Shakespeare garden featuring herbs mentioned in his works.

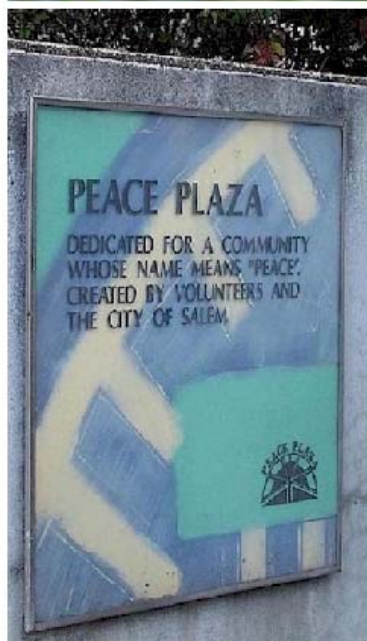
Dr. Seuss

Wizard of Oz

Harry Potter

Charlotte's Web

Alice & Wonderland



Components of two gardens devoted to peace: The pole is part of Salem, Oregon's Riverfront Park memorial dedicated to those whose lives were lost on September 11. The Peace Plaza centers Salem's Civic Center. The flower above the mosaic blooms in one of the circular plantings. Above right is the *Philadelphus menziesii*, Mock Orange, a beautiful shrub with flowers of such fragrance they command viewers to stop and breathe in their peacefulness..

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Theme gardens, continued

The Very Hungry Caterpillar

Dinosaurs

Fairy Tales

A Storybook

A biblical garden with signs noting the applicable Bible verse.

Dye garden – many native plants give beautiful dyes. (See www.nwplants.com/information/edible_medicinal_poison/household.html)

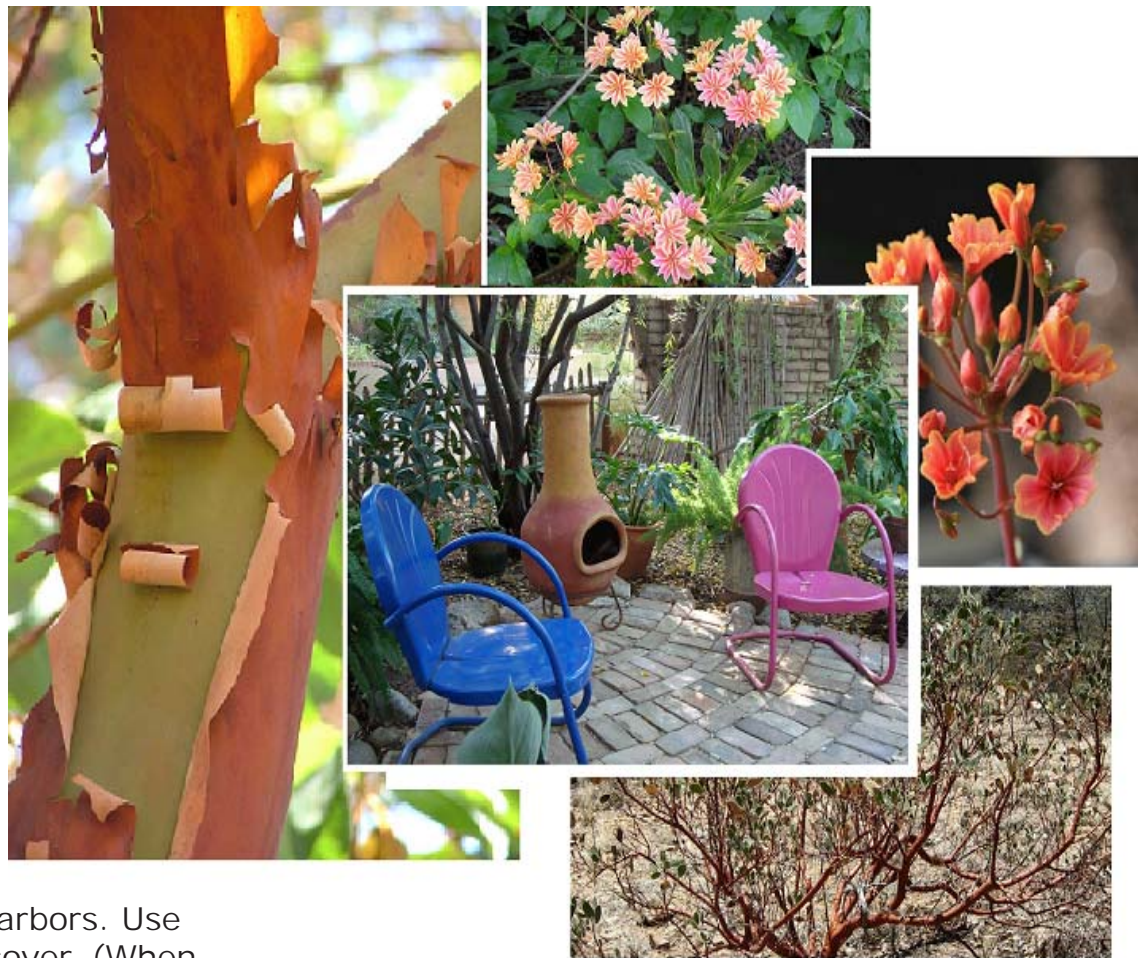
Medicinal herbs – plants known for their healing properties are fine for the garden.

Cottage Garden – old fashioned, romantic and cozy

Tuscan Patio Garden – a sunny space with rustic planters spilling over with lush flowers and stone pavers underfoot

Gothic Garden - dark rich colors, draping foliage, musky scents. Wispy ferns or grasses, lighter in color, have a ghostly effect with other plants. Let placement be relaxed instead of structured. Black web-design and wrought iron arbors. Use willowy plants at corners, soft moss for groundcover. (When the gothic urge passes, replace the dark with reds, yellows and pinks to un-gothic your garden at minimal cost.

Mexican Hacienda - an inviting and relaxing courtyard full of lewisia, native grapes, Manzanita, perhaps Shore Pine.



Tuscon's Botanical Garden inspires this hacienda style with Madrone (*Arbutus menziesii*), Lewisias, and Manzanita (*Arctostaphylos*)

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Theme gardens, continued

Persian Garden - The first pleasure gardens in Egypt and Persia were based on water and their long narrow canals ran in grid patterns, stemming from the idea of the four-square paradise garden.

Old West Garden - Arid or poor soil areas, drought-prone regions with water limitations, decorations and landscaping to complete the theme.

Colonial Garden - American colonists were practical, their gardens fed the family and brought beauty into the home with fruit, vegetables, herbs and flowers.

Bali Garden - a lovely tropical garden.



arbor and 100 yards above the dwelling-house—it is remote from all noises...”—Mark Twain, Letter to Dr. John Brown, 1874

Picturesque and serene, the study was moved from the garden to the Elmira College Old Campus after his death to protect it from vandals. Neither home nor study are currently open to the public.

An Author's Garden - Mark Twain (Samuel Clemmons) and his family summered for over twenty years at Quarry Farm in Elmira, New York, which his sister-in-law inherited in 1870. In a garden near the main house, an octagonal study was built for Twain's writing.

“On hot days I spread the study wide open, anchor my papers down with brickbats and write in the midst of the hurricanes, clothed in the same thin linen we make shirts of. The study is nearly on the peak of the hill; it is right in front of the little perpendicular wall of rock left where they used to quarry stones. On the peak of the hill is an old arbor roofed with bark and covered with the vine you call the “American Creeper”—its green is almost bloodied with red. The Study is 30 yards below the old



Theme gardens, continued

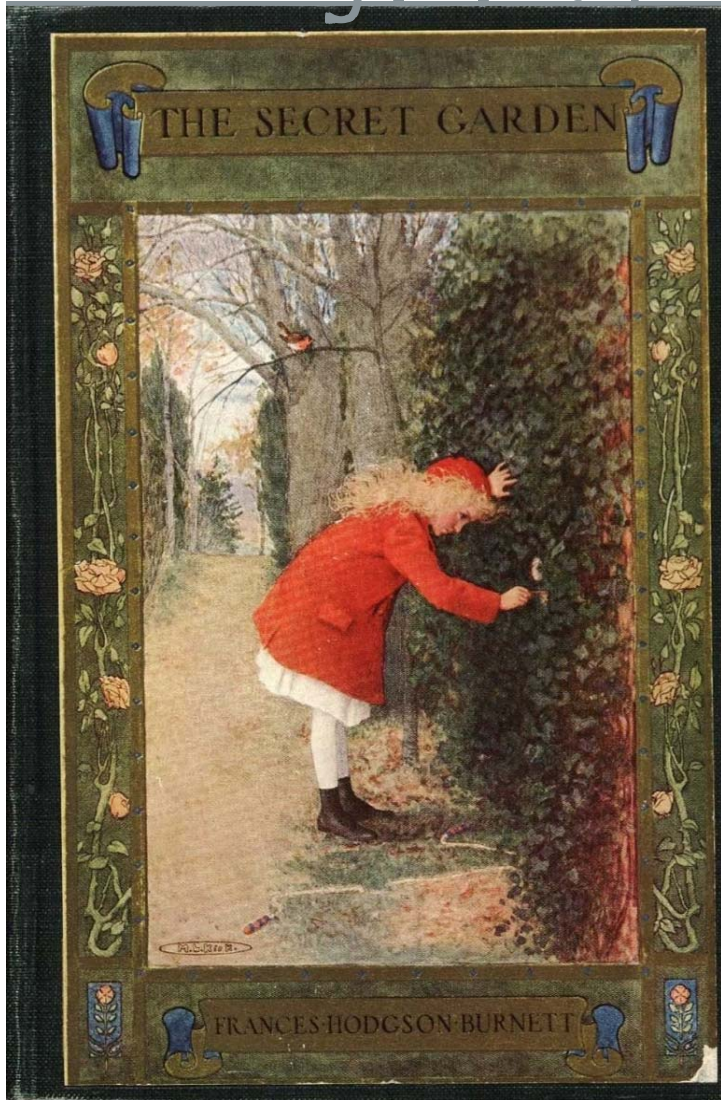


Model Railroad Garden
– This outdoor exhibition takes visitors from coast to coast with model trains, miniature representations of America's best-loved landmarks, and small-scale gardens. The 7,500-square-foot (700 m²) Model Railroad Garden features 16 garden scale trains on 1,600 feet (490 m) of track. The buildings have been handcrafted with natural materials, including twigs, bark, leaves, acorns and pebbles. The landscape is made up of over 5,000 tiny trees, shrubs, groundcovers and flowering plants in 250 varieties. This garden is open from mid-May to late October.

Photo credit: Chicago Botanic Garden train model engineers
http://en.wikipedia.org/wiki/Chicago_Botanic_Garden

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Theme gardens, continued



Frances Hodgson Burnett, lived at Great Maytham Hall from 1898 to 1907, where she found the old walled garden dating from 1721 sadly overgrown and neglected.

Aided by a robin, Burnett discovered the door hidden amongst the ivy, and began the restoration of the garden, which she planted with hundreds of roses.

She set up a table and chair in the gazebo, and dressed always in a white dress and large hat, she wrote a number of books in the peace and tranquility of her scented secret garden.



Photo credit: Stephen Nunnery

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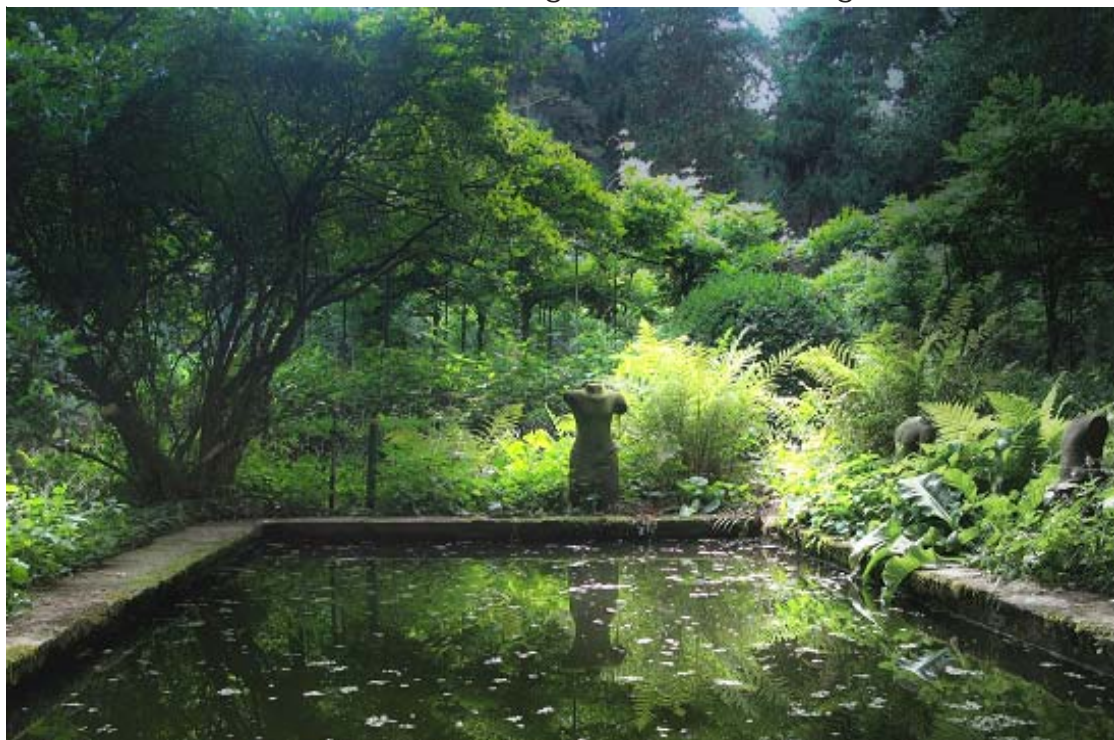
The Secret Garden by Frances Hodgson Burnett (1911 Edition) This lovely book inspired my love of gardens.

Theme gardens, continued

As gardeners know, no two gardens are alike. The real trick is to find plants that fit your theme. For our purposes, plants native to the Pacific northwest are required criteria, but you may find yourself on a treasure hunt finding natives for every component or nuance. In these instances, the palette could include other, non-native, as long as they are not invasive. But keep the purity of native as much as possible and when non-natives are used, make sure it's on a make-do level until you find a true native for the purpose.

Once you have selected your theme, you can begin thinking about the design of your garden. Layout is but another facet of the theme garden. Think waves in the ocean or the flight of a bird, very relaxed and flowing as the eye is drawn from one plant to another. Or more structured--beds done like quilt blocks and Celtic knots. There are no rules other than those set by nature.

Whatever the theme, let it be a smart garden that will conserve water, enrich the soil and provide a habitat for birds, butterflies, bees and desirable bugs. From amending the soil with shredded newspaper or compost to using water



collected from rain barrels to keep soil moist. Protect the planet, one theme garden at a time.

Smart Theme Garden Advice

Jackie Riffice, master gardener and founder of Prairie Godmothers, advises those new to theme gardens:

"To encourage people to take the first step in smart theme gardening we have two tips:

1. Start small. Choose three plants for the first year. See how they do and adjust or add accordingly.
2. Be brave and just try it. "My garden's theme is mistakes and apologies," Riffice says."

Surprising garden. Photo
Credit glasseyes view

[⇒ More ⇒](#)

Theme gardens, continued

Resources used in this article

Theme Gardens - Now there's an idea! by Kate Gardner, Planet Natural (www.planetnatural.com/site/theme-gardens.html)

Creating a Theme Garden by Paul Simon, Landscape Architect for KidsGardening, (www.kidsgardening.org/node/64104)

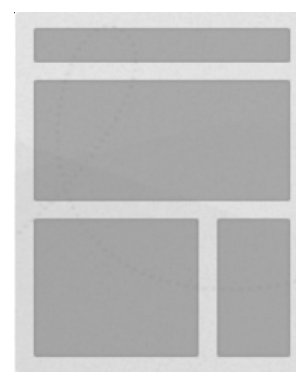
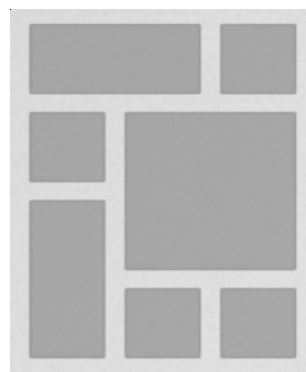
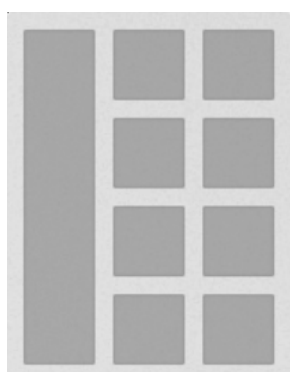
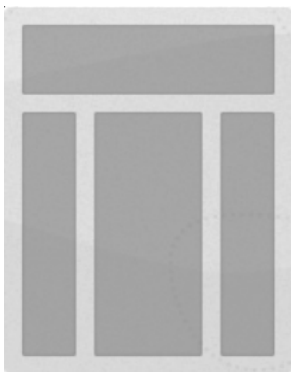
Creating a theme garden by Wichita County Master Gardeners/Beth Turlington, (www.timesrecordnews.com/news/2012/oct/27/creating-a-theme-garden/)

Variations on a Theme Garden: Creative Ways to Jazz Up Your Yard by Rachel Gilmore for FrankfortPatch (www.frankfort.patch.com/articles/variations-on-a-theme-garden-creative-ways-to-jazz-up-your-yard)

Prairie Godmothers (www.prairiegodmothers.com/) Prairie Godmothers provides a variety of gardening services including consulting, companion gardening and garden coaching.



Note: While researching this idea, I queried google.com for "what is a theme garden." One of the results turned out to be website themes rather than garden themes. However, some of the layouts may work if structure is a goal. From www.themegarden.com/



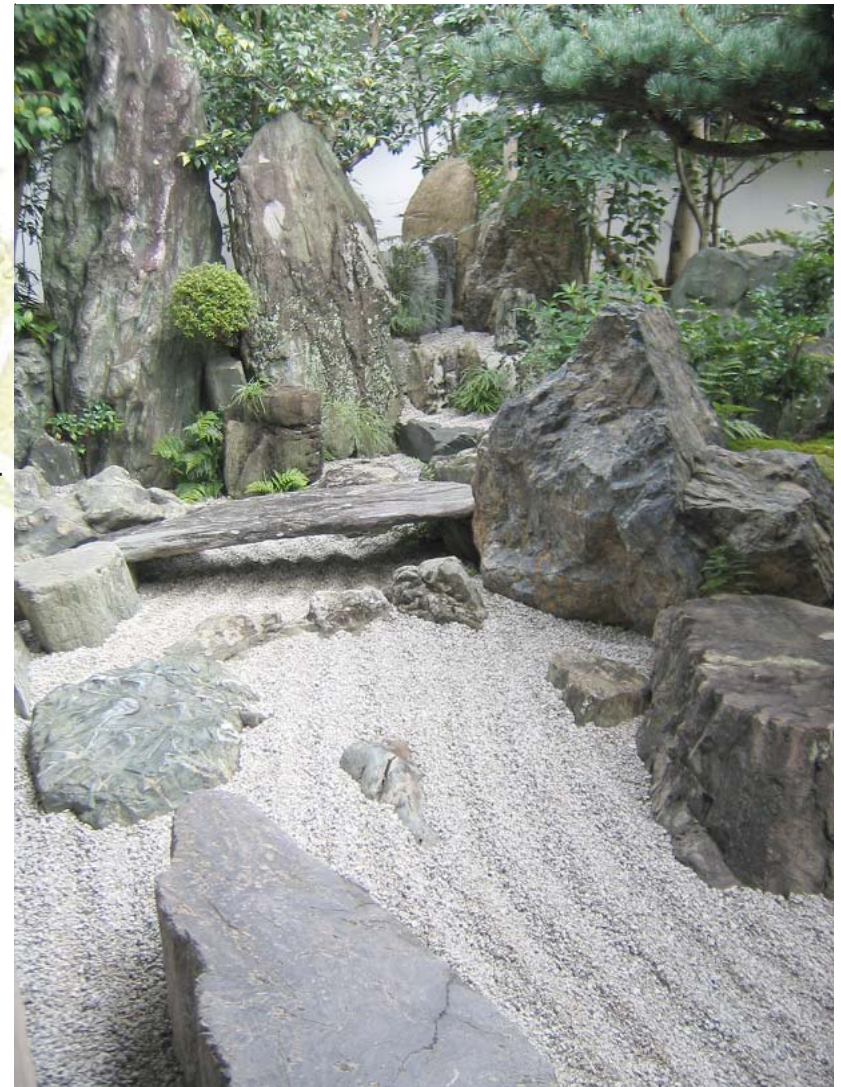
Zen Garden

A place of peace and serenity

"Zen" is the Japanese pronunciation of the Chinese character "chan," the Chinese translation from the Indian Sanskrit term "dhyana," meaning meditation. Combine traditional elements and appropriate native plants for a unique zen garden all your own.

Traditional elements

- Stone**, the structural basis of the hardscape design.
- Pebbles** create fields, offer a base plane for art, outline path.
- Sand and fine gravel** create a metaphor for water.
- Fences and/or panels for enclosures** (traditionally of bamboo --but willows or other native branches work equally well).
- Ponds, streams and waterfalls** add soothing sound and gentle movement.
- A basin of rock or other natural material with a dipper** placed before the entry to cleanse the hands and center the spirit.
- A lantern, candle or oil lamp** that can be lit for evening enjoyment.
- A figure of Buddha or other artistic enhancement** gives visual delight.
- Plants** --native grasses, shrubs or trees are the earth element of a Zen garden individually selected for their particular beauty, color and texture.
- Finally, a comfortable place to rest**, sitting, kneeling or even lying down for relaxed contemplation, meditation.



View of the daisen-in stone garden Horaisan mountain in Daitokuji. This garden of rocks includes a tree, some shrubs, grasses and ferns to marry the elements in lovely harmony

[⇒More⇒](#)

Zen Garden, continued

Native grasses, shrubs or trees with intriguing habits are the earth element of a Zen garden. A few low maintenance, drought resistant plants with year round interest to be appreciated whenever the garden is visited should be individually selected for their particular beauty, color and texture. Types of plants for the Zen garden and suggested specimens native to the Pacific northwest:



Saihō-ji, or the Moss Garden, an early zen garden from the mid-14th century. The moss arrived much later, when the garden was not tended. This view is from Saihouji (kokedera) pond. Photo credit: Ivanoff

Plant element

--**Small accent tree:** Pacific madrone (*Arbutus menziesii*) or Manzanita (*Arctostaphylos* spp.)

--**Specimen plant with winter interest:** Evergreen huckleberry (*Vaccinium ovatum*), Pacific rhododendron (*Rhododendron macrophyllum*), Pacific Ninebark (*Physocarpus capitatus*), Salal (*Gaultheria shallon*)

--**Tall grass:** Basin wildrye (*Leymus cinereus*)

--**Medium-height, scented, woody or herbaceous plant:** Sage (*Salvia* spp.)

--**Groundcover plant:** White mountain heather (*Cassiope mertensiana*), Bearberry (*Arctostaphylos uva-ursi*)

--**Small grass:** Feather reed grass (*Calamagrostis foliosa*), California Sweetgrass (*Hierochloa occidentalis*)

[⇒More⇒](#)

Zen Garden, continued



Traditional elements

- Stone**, the structural basis of the hardscape design.
- Pebbles** create fields, offer a base plane for art, outline pathways.
- Sand and fine gravel** create a metaphor for water.



Plant elements

- Small grass**: Feather reed grass (*Calamagrostis foliosa*), California Sweetgrass (*Hierochloa occidentalis*)
- Tall grass**: Basin wildrye (*Leymus cinereus*)

Isolated views of the Zen garden Horaisan mountain in Daitokuji. The large rocks command the focus, while smaller pieces offer resting places for the eye. The small gravel and sand elements provide movement.

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Zen Garden, continued



Plant elements

--**Medium-height, scented, woody or herbaceous plant:** White Sage (*Ceanothus cuneatus* var. *cuneatus*), Tall Oregon Grape (*Mahonia aquifolium*)

Traditional elements

--**A lantern, candle or oil lamp** that can be lit for evening enjoyment, or choose a solar powered lantern, available nowadays as branches with tiny flowers, traditional lanterns or paper lanterns.

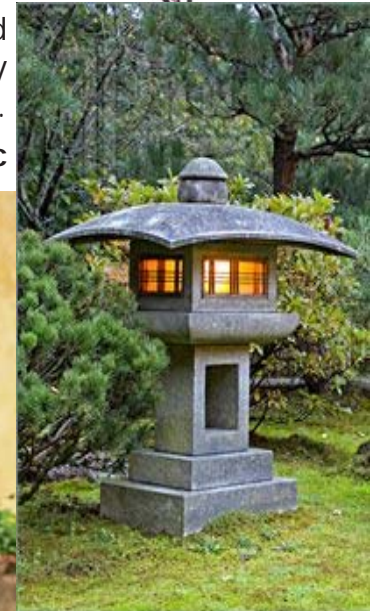
--**A figure of Buddha or other artistic enhancement** gives visual delight.



This Shona carving of the endangered wattled crane, a symbol of longevity whose habitat in Zimbabwe and throughout Africa is dwindling. Available for



purchase from the National Geographic Store at www.shop.nationalgeographic.com/ngs/product/member-products/small-shona-crane-sculpture



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Zen Garden, continued



Traditional elements

--Ponds, streams and waterfalls add soothing sound and gentle movement.

--A basin of rock or other natural material with a dipper and kneeling stone placed before the entry to cleanse the hands and center the spirit, traditional element in Japanese tea houses.



Plant elements

--Small accent tree: Pacific madrone (*Arbutus menziesii*) or Manzanita (*Arctostaphylos* spp.)

Pacific Madrone (*Arbutus menziesii*) is a beautiful evergreen tree with leathery, dark green leaves and peeling cinnamon to dark brown bark. The creamy white flowers have soft fragrance, very pleasing.

When the flowers have gone by, bright red fruits take their place, much to the delight of birds and other wildlife as well as human admirers.



For sound or movement, clockwise from top: windchime of natural materials, basin and kneeling stone, water bells which chime as breezes pass by, Tibetan singing bowl

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Zen Garden, continued

Traditional elements

--**Fences and/or panels for enclosures** are traditionally of bamboo, but willows or other native branches work equally well. At right from top are borders of densely planted shrubs, simple wooden fence viewed from round entrance, a year-old living willow fence and a woven fence of dried willow branches. The living fence can be clipped annually until sufficiently dense or allowed to reach for the sky under its own power.



Plant elements

--**Groundcover plant:** Evergreens Bearberry (*Arctostaphylos uva-ursi*) which is a low growing shrub with pink bell flowers and bright red fruit edible for humans and wildlife, White mountain heather (*Cassiope mertensiana*) with fragrant white flowers, Mahala Mat (*Ceanothus prostratus*) is an extremely low dense mat with bunches of periwinkle flowers.



Kinnikinnik
photo credit: Sten
Porse, Mountain
Heather photo
credit: Walter Siegmund



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Zen Garden, continued

Traditional elements

--Fences and/or panels for enclosures or roofs are practical should you want to use the Zen garden when the weather is not cooperating. You may desire shade, a wind block, shelter from rain or sleet or snow. A living fence can be shaped as a bower such as the willow gazebo at right, top or the living willow covered bench, middle right. A simple structure with a top of lath, right bottom, can be hardscape only or used as trellis for vines. A fiberglass or other opaque material is a more permanent choice. The ubiquitous market umbrella or sail are easy to

customize for season or even time of day. Consider the affect each roof will have on the plants beneath.

Plant elements

--Specimen plant with winter interest: Left clockwise from top, Salal (*Gaultheria shallon*), Pacific Ninebark (*Physocarpus capitatus*), Evergreen huckleberry (*Vaccinium ovatum*), Pacific rhododendron (*Rhododendron macrophyllum*). Ninebark is deciduous with interesting shaggy bark. Salal and Huckleberry both have small flowers followed by delicious fruit.

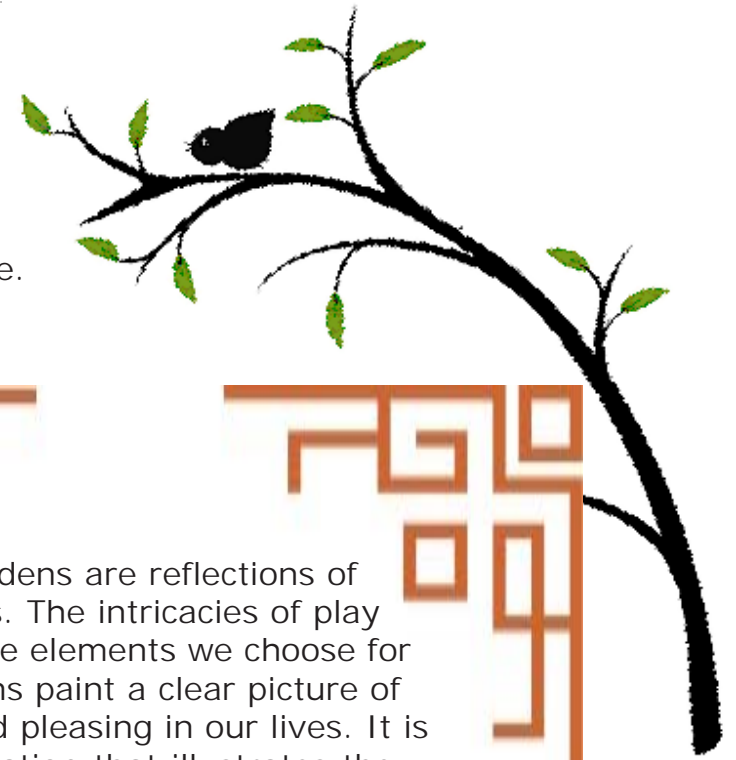


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Zen Garden, continued

Traditional elements

--Finally, a comfortable place to rest, either sitting, kneeling or even lying down must be included for relaxed contemplation, meditation. In summer, a small fan might be welcome. In winter, perhaps a light throw to snuggle into could equalize the elements.



Our gardens are reflections of ourselves. The intricacies of play between the elements we choose for our gardens paint a clear picture of what we find pleasing in our lives. It is this correlation that illustrates the person we really are, our true core.

A Zen garden can help us discover the inner peace for which we yearn. On entering this oasis, the cares of the world, our personal burdens, simply fall from our shoulders, leaving us in tune with our chi, our true inner being.



Butterfly Garden

Food for larva, food for imago

Attracting butterflies requires plants for the caterpillars and nectar plants for the transformed butterfly. Adult butterflies must be attracted first, but if you have host plants for the little ones to nibble, you can keep the winged lovelies in your garden. Decisions to create a perfect butterfly garden:

- Pick a target--which butterflies catch your fancy? Here in the northwest there are about 20 species commonly found.
- Pick a location--must have shelter from wind and rain, sunny spots for basking and puddles for water and nutrients. Situate the butterfly area for optimum viewing. Having a deck, patio or gazebo close at hand is very desirable.
- Sketch the design layout. Take advantage of existing structure and plants, put it into action. Don't forget the basking site. A large, flat rock, an old wooden chair, a small table or a tree stump will all suffice for the critical wing-drying that affords perfect flight.
- Put in the host plants for the youngsters.
- Finally, set the table with colorful, fragrant flowers. Take a seat and enjoy this wonder of nature.

Permission granted to use this photo
under GFDL by Kurt Stueber



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Butterfly Garden, continued



Many butterfly species use only a single plant species for nourishment. The Monarch, Oregon Silverspot and Fender's Blue are two examples. If you really want one of these butterflies to visit your garden, plant a generous number of their preferred flora.

However, if you are hoping for a variety of butterflies, there are a great many plants native to the Pacific northwest that are true butterfly magnets. And there is no law against having two butterfly gardens or areas devoted to particular species.

Plant suggestions: Madrona (*Arbutus menziesii*), Lupine (*lupinus*), Monkeyflower (*Mimulus*), Salal (*Gaultheria shallon*), Honeysuckle (*Lonicera*), Cascara (*Rhamnus purshiana*), Pines (*Pinus*), Rhododendron, Pearly Everlasting (*Anaphalis margaritacea*), Milkweed (*Asclepias*), Blanket Flower (*Gaillardia*), Aster, Orange (*Aquilegia formosa*), Kinnikinnik (*Arctostaphylos uva ursi*) Blueblossom (*Ceanothus thyrsiflorus*).

"Create a Butterfly Garden" by Lamb, Chambers and Allen is a great resource: <http://extension.oregonstate.edu/catalog/pdf/ec/ec1549.pdf>

Left, from top: Madrona (*Arbutus menziesii*), Stream Lupine (*Lupinus rivulus*), Monkey Flower (*Mimulus guttatus*), Hairy Manzanita (*Arctostaphylos columbiana*), Pink Honeysuckle (*Lonicera hispidula*)

Right, from top: Blueblossom (*Ceanothus thyrsiflorus*), Blanket Flower (*Gaillardia arista*), Pearly Everlasting (*Anaphalis margaritacea*), Douglas Aster (*Symphyotrichum subspicatum*)



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Butterfly Garden, continued

Brush-footed Butterflies (Nymphalidae)

The largest family of butterflies with about 6,000 species distributed throughout most of the world. Around 40 of these are found in Oregon. Medium sized to large butterflies, most have a reduced pair of forelegs, many hold their wings flat when resting. Also called brush-footed butterflies or four-footed butterflies, many are brightly colored. Emperors, admirals, tortoiseshells, and fritillaries are members. The underwings are often dull--in some they look like dead leaves or are paler, helping the butterfly disappear into its surroundings. Here are species of this family found in Oregon:

Admirals and Relatives (Limenitidinae)

- California Sister (*Adelpha bredowii*)
- Lorquin's Admiral (*Limenitis lorquini*)
- Viceroy (*Limenitis archippus*)
- Weidemeyer's Admiral (*Limenitis weidemeyerii*)

Longwings (Heliconiinae)

- Callippe Fritillary (*Speyeria callippe*)
- Coronis Fritillary (*Speyeria coronis*)
- Great Basin Fritillary (*Speyeria egleis*)
- Great Spangled Fritillary (*Speyeria cybele*)
- Hydaspe Fritillary (*Speyeria hydaspe*)
- Meadow Fritillary (*Boloria bellona*)
- Mormon Fritillary (*Speyeria mormonia*)
- Northwestern Fritillary (*Speyeria hesperis*)
- Pacific Fritillary (*Boloria epithore*)
- Silver-bordered Fritillary (*Boloria selene*)
- Variiegated Fritillary (*Euptoieta claudia*)
- Zerene Fritillary (*Speyeria zerene*)



Callippe Fritillary

Photo credit: US Fish & Wildlife



Hydaspe Fritillary

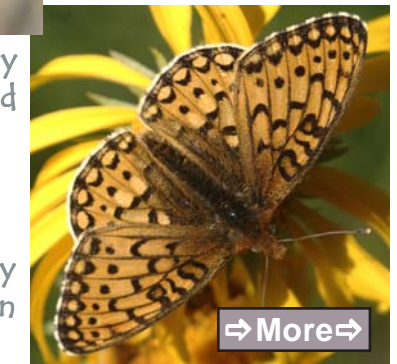
Photo credit: Walter Siegund



Lorquin's Admiral
Photo credit: Calibas



Viceroy, Photo credit:
Piccolo Namek



Mormon Fritillary

Photo credit: Jerry Fredman

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Butterfly Garden, continued

Milkweed Butterflies (Danainae)

Monarch (*Danaus plexippus*)

Queen (*Danaus gilippus*)

True Brushfoots (Nymphalinae)

American Lady (*Vanessa virginiensis*)

California Crescent (*Phyciodes orseis*)

California Tortoiseshell (*Nymphalis californica*)

Common Buckeye (*Junonia coenia*)

Compton Tortoiseshell (*Nymphalis vaualbum*)

Edith's Checkerspot (*Euphydryas editha*)

European Peacock (*Inachis io*)

Field Crescent (*Phyciodes pulchellus*)

Gillette's Checkerspot (*Euphydryas gillettii*)

Gray Comma (*Polygonia progne*)

Green Comma (*Polygonia faunus*)

Hoary Comma (*Polygonia gracilis*)

Hoffmann's Checkerspot (*Chlosyne hoffmanni*)

Leanira Checkerspot (*Thessalia leanira*)

Milbert's Tortoiseshell (*Aglais milberti*)

Mourning Cloak (*Nymphalis antiopa*)

Mylitta Crescent (*Phyciodes mylitta*)

Northern Checkerspot (*Chlosyne palla*)

Northern Crescent (*Phyciodes cocyta*)

Painted Lady (*Vanessa cardui*)

Pale Crescent (*Phyciodes pallida*)

Red Admiral (*Vanessa atalanta*)

Sagebrush Checkerspot (*Chlosyne acastus*)

Satyr Comma (*Polygonia satyrus*)

Variable Checkerspot (*Euphydryas chalcedona*)

West Coast Lady (*Vanessa annabella*)



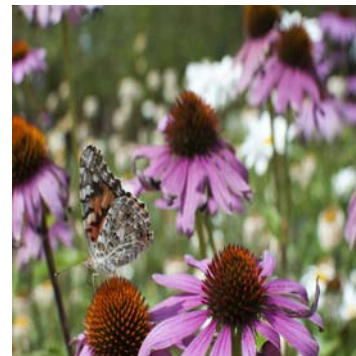
American Lady views above and below
Photo credit: Patrick Coin



Mourning Cloak larva
Photo credit: Wthrower



Mourning Cloak
Photo credit: Kymi



West Coast Lady views above and below
Photo credit: David Murphy



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Butterfly Garden, continued

Parnassians and Swallowtails (Papilionidae)

Swallowtail butterflies are large, colorful butterflies in the family Papilionidae, which includes over 550 species. Nine may be found in Oregon. Though the majority are tropical, members of the family occur on every continent except Antarctica. The family includes the largest butterflies in the world, the birdwing butterflies of the genus Ornithoptera.

The Parnassiinae or Snow Apollos are a subfamily of the Papilionidae or Swallowtail family. The subfamily includes about 50 medium sized, white or yellow species. The Snow Apollos are high altitude butterflies and are distributed across Asia, Europe and North America.

The tribes recognized in the Parnassiinae are Parnassiini, Zerynthiini and the Luehdorfiini.

Parnassians (Parnassiinae)

Clodius Parnassian (*Parnassius clodius*)

Rocky Mountain Parnassian (*Parnassius smintheus*)

Swallowtails (Papilioninae)

Anise Swallowtail (*Papilio zelicaon*)

Indra Swallowtail (*Papilio indra*)

Old World Swallowtail (*Papilio machaon*)

Pale Swallowtail (*Papilio eurymedon*)

Pipevine Swallowtail (*Battus philenor*)

Two-tailed Swallowtail (*Papilio multicaudata*)

Western Tiger Swallowtail (*Papilio rutulus*)

Rocky Mountain
Parnassian, Photo credit:
Walter Siegmund



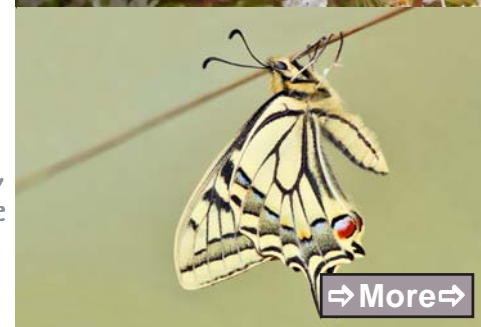
Clodius Parnassian,
Photo credit: Robert
Nash, Curator of En-
tomology, Ulster
Museum



Pipevine Swallowtail,
Photo credit: Kaldari



Old World Swallowtail,
Photo credit: Ernie



Butterfly Garden, continued

Skippers (Hesperiidae)

A skipper or skipper butterfly is a butterfly of the family Hesperiidae. They are named after their quick, darting flight habits. There are more than 3500 recognized species of skippers and they occur worldwide, but with the greatest diversity in the Neotropical regions of Central and South America. 14 in Oregon

Spread-wing Skippers (Pyrginae)

Afranius Duskywing (*Erynnis afranius*)
Common Checkered-Skipper (*Pyrgus communis*)
Common Sootywing (*Pholisora catullus*)
Dreamy Duskywing (*Erynnis icelus*)
Mexican Cloudywing (*Thorybes mexicana*)
Mohave Sootywing (*Hesperopsis libya*)
Northern Cloudywing (*Thorybes pylades*)
Northern White-Skipper (*Heliopetes ericetorum*)
Pacuvius Duskywing (*Erynnis pacuvius*)
Persius Duskywing (*Erynnis persius*)
Propertius Duskywing (*Erynnis propertius*)
Silver-spotted Skipper (*Epargyreus clarus*)
Two-banded Checkered-Skipper (*Pyrgus ruralis*)
Western Cloudywing (*Thorybes diversus*)



Common
Sootywing,
Photo: Anne
Toal

Two-Banded
Checkered-
Skipper, Photo:
Jerry Spivey



Dreamy
Duskywing,
Photo
credit: D.
Gordon E.
Robertson



Common
Checkered-
Skipper,
Photo
credit:
Kaldari



Persius
Duskywing,
Photo
credit:
Bill
Blouto



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Butterfly Garden, continued

Oregon Silverspot (*Speyeria zerene hippolyta*)

The Oregon silverspot butterfly (*Speyeria zerene hippolyta*) is listed as a threatened species under the United States Endangered Species Act. Patches of Oregon silverspot habitat occur in Oregon, Washington and California. Development, grazing and off-road vehicles are all to blame for this butterfly's decline. Changes in fire regime, introduced plant species and pesticides also threaten this butterfly.

Historically, the coastal meadow habitats used by the Oregon silverspot were maintained in an early successional state by periodic fires. Fires prevent trees and shrubs from overshadowing low-growing plants such as violets (genus *Viola*). Recently, fires have been prevented because development has made them undesirable. Thus, meadow habitat has gradually been replaced by forest. Recognition of the role of fire and other periodic disturbance in the maintenance of Oregon Silverspot habitat has allowed appropriate management strategies to be enacted and the butterfly's future is relatively bright.



Dog Violet (*Viola adunca*) hosts the endangered Oregon Silverspot Butterfly. Flower photo credit: Thegreenj. Butterfly photo from Oregon Dept. Fish/Wildlife

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Butterfly Garden, continued

Monarch (*Danaus plexippus*)

Monarchs are foul-tasting and poisonous due to the cardenolide aglycones in their bodies, ingested from milkweed. Both butterfly and plant advertise their unpalatability with bright colors and areas of high contrast on the skin or wings in a phenomenon known as aposematism.

Monarchs also contain cardiac glycosides. Overwintering monarchs in Mexico are often preyed upon by black-headed grosbeaks, which are immune to that toxin. Other birds, such as orioles and jays, have learned to eat only the thoracic muscles and abdominal contents because these contain less poison than the rest of the body. Some mice are also able to withstand large doses of the poison. Over time, overwintering adults become less poisonous, thus making them more vulnerable to predators. In Mexico, about 14% of the overwintering monarchs are eaten by birds and mice.

Monarchs share this defense with the similar-appearing viceroy butterfly, in an example of Müllerian mimicry. (Viceroy was at one time believed to be Batesian mimics of monarchs.)



Female, left,
photo credit:
Kenneth Dwain
Harrelson.

Male, right,
photo credit:
Derek Ramsey



Showy Milkweed
(*Asclepias speciosa*)

[⇒ More ⇒](#)

Butterfly Garden, continued

Fender's Blue (*Icaricia icarioides fenderi*)

Fender's blue (*Icaricia icarioides fenderi*), an endangered subspecies, is found only in the Willamette Valley of northwestern Oregon. First noticed in the 1920s, scientifically documented in 1931. Biologist Ralph Macy named it for his friend, Kenneth Fender. Lost and found more than once, in January 2000, the Fender's blue was added to the Endangered Species List by the U.S. Fish and Wildlife Service. Currently, the largest known populations of this butterfly exist in the Baskett Slough National Wildlife Refuge.



Photo by Andy Robinson, USFWS

Fender's blue dependent on a threatened plant species, known as Kincaid's lupine. Eggs are deposited in May, hatch in June. The larvae winter in the root system of the plants, emerging in March as caterpillars, crawl up the plants, and feed on the lupine leaves. After several moltings, they finally metamorphose into butterflies, and in the short week to ten days remaining in their lives, they mate and then deposit new eggs for the next generation, continuing the life cycle.



Kincaid's Lupine photos courtesy of U.S. Fish and Wildlife

With most of the habitat where the lupine existed now lost to agriculture and urbanization, only isolated and protected lands support enough area for the plant to survive. It produces around once every 52 weeks, and have about six offsprings that survive to become adults.



Fender's Blues. Photo credits: Top, Oregon US Army Corps of Engineers, bottom, Cheryl Schultz for the US Fish & Wildlife Service,

[⇒ More ⇒](#)

Butterfly Garden, continued

Get to know your quarry: A few butterfly facts

Butterflies feed on nectar from flowers, pollen, tree sap, rotting fruit, dung, decaying flesh, and dissolved minerals in wet sand or dirt. One of their main jobs in nature is to pollinate certain species of plants, a task they share with bees. Butterflies do not carry the volume of pollen that bees do, but they can carry it over greater distances than bees.



Photo from Earth's Birthday Project, at www.earthsbirthday.org/butterflies/

Nutritional needs change as they metamorph. Adults feed on liquids they suck through their proboscis, taking up water, sugars, sodium and other minerals. When more salt is needed, they may land on people to harvest the salt from sweat. Some species get minerals and nutrients from dung, rotting fruit or carcasses. In some species, only the males do this. Interestingly, there is a theory that nutrients collected from these locations are excreted along with the spermatophore during breeding--a special nuptial gift.

Butterfly antennae used to sense the air for wind and aromas are widely varied in appearance, depending on their usage. Some have pointed angles or hooks, others are knobbed. All are profusely covered with sensillae, the sensory organs. (It is said that a butterfly's sense of taste is 200 times stronger than humans.) These highly developed organs work in concert with the chemoreceptors on the feet which, when coming in contact with a leaf, tell the butterfly whether or not their offspring will be able to feed on the plant.

Butterflies have excellent sight. Many butterflies have organs of hearing. Some even make sounds of clicking or warning. Monarchs and many others migrate during the year, some take very long flights. They fly in daytime, using the sun as a compass. When the sun is hidden, they can see polarized light for orientation.

As do birds, a large number of butterflies adopt a territory and will chase away intruding butterflies of other species.

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Butterfly Garden, continued

For more information:



The Butterfly Conservation Initiative has partnered with many other entities to reach their broad mission:

The Butterfly Conservation Initiative is dedicated to the conservation of threatened, endangered, and vulnerable North American butterflies and the habitats that sustain them, with a focus on recovery, research, and education.

A brief history: The Butterfly Conservation Initiative was established in 2001 as a result of conversations between the American Zoo and Aquarium Association and the US Fish and Wildlife Service's Office of Partnerships and Outreach.

Earth's Birthday Project, at www.earthsbirthday.org/butterflies/, is par excellence for educational materials about butterflies and bugs. There are several pages to download, items that may be ordered including live butterflies.

The Butterfly Site, at www.thebutterflysite.com/oregon-butterflies.shtml, has in-depth details about butterflies worldwide. Our list of Oregon butterflies is based on the information at this site.

Wikipedia, the Free Encyclopedia, has more data on many levels including details on individual species. Here is the page on Monarchs, www.en.wikipedia.org/wiki/Monarch_butterfly

Create a Butterfly Garden by S. Lamb, S. Chambers and N. Allen from Oregon State University Extension Service can be viewed or downloaded here: www.extension.oregonstate.edu/catalog/pdf/ec/ec1549.pdf



This & That

Notes from Jennifer

A few months ago a friend shared this photo with me of butterflies perched on the dirt in eastern Oregon. She was riding her off-road vehicle, camera at the ready, viewing the beautiful world in which we live. As she came up over a rise, she discovered this flock of butterflies. They were intent on their task, whatever it was, and would not be disturbed nor swayed from it.

In my recent studies of butterflies, I may have found the answer: Mud-puddling is a phenomenon mostly seen in butterflies to gather liquid nutrients. Typically, it takes place on wet soil. But even sweat on human skin may be attractive to butterflies. This behaviour is restricted to males in many species, and at times an assembly of butterflies on the ground acts as a welcome mat to join the flock. The groups can include several species.

Males seem to benefit from the sodium uptake through mud-puddling behaviour with an increase in reproductive success. The collected sodium and amino acids are often transferred to the female with the spermatophore during mating as a nuptial gift. This nutrition also enhances the survival rate of the eggs.

When puddling, some species pump fluid through the digestive tract and release fluid from their anus. In some, this is released in forced anal jets at 3 second intervals. Fluid of up to 600 times the body mass may pass through and males have a much longer ileum (anterior hindgut) than non-puddling females.

Until next time, good luck and
good gardening!

Jennifer



Butterflies Mud-puddling in eastern Oregon?
Photo credit: Nona

Butterflies Mud-puddling at Amravati-Chinnar
border, Tamilnadu. Photo credit: D.Momaya at
[en.wikipedia](https://en.wikipedia.org)

