

Volume 2, Issue 9, 2004

October 2004

# Northwest Native Plant Journal

A Monthly Web Magazine

(formerly NW Native Plant Newsletter)

**Ericaceae:**

**Professor Wilbur Bluhm shares photos and info**

**Update on our native gardening project**

**And introducing Sparky, the frisky squirrel!**

**Published by The Wild Garden: Hansen's Northwest Native Plant Database**

# Northwest Native Plant Journal

## A Monthly Web Magazine

(formerly NW Native Plant Newsletter)



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# About this Web Magazine

This Journal was created under the direction of Wally Hansen – a dedicated Grower, Aficionado and Passionate Lover of Northwest Native Plants.

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.).



*Quercus garryana*  
(Garry Oak)

© Heidi D. Hansen



# On the Cover

## Autum color at it's finest: Cascade Bilberry (*Vaccinium deliciosum*)

### Physical Characteristics

A deciduous shrub growing to 0.3m. It is hardy to zone 6. It is in flower from May to June. The flowers are hermaphrodite (have both male and female organs) and are pollinated by Insects. We rate it 3 out of 5 for usefulness.

The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid soils and can grow in very acid soil. It can grow in semi-shade (light woodland) or no shade. It requires moist soil.

### Habitats and Possible Locations

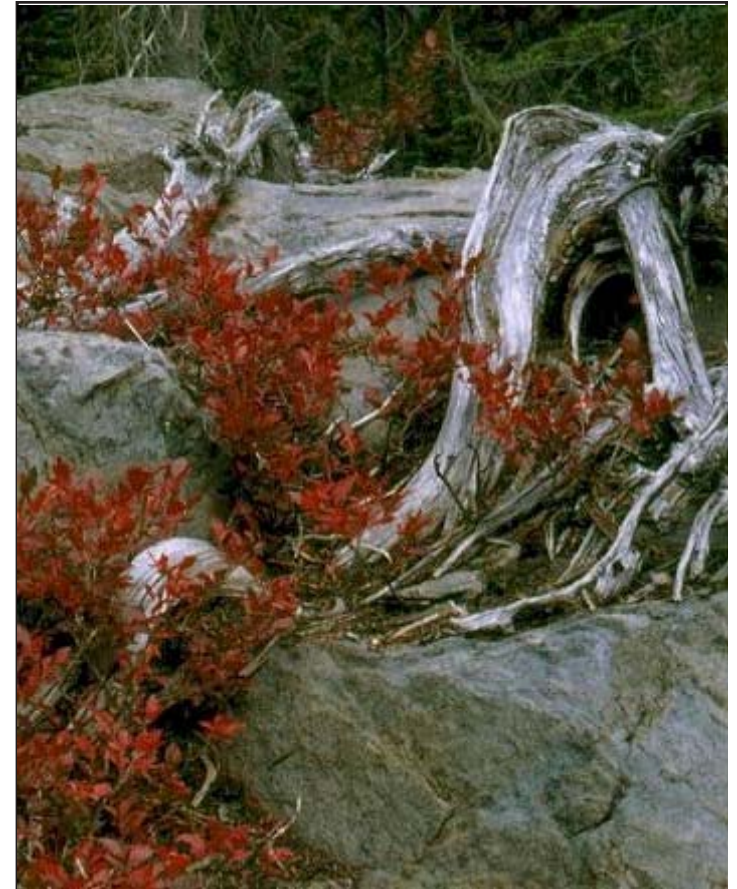
Woodland, Cultivated Beds, Sunny Edge.

### Edible Uses

Fruit.

Information here is from the Plants for a Future website:

<http://www.scs.leeds.ac.uk/>



Cascade Bilberry (*Vaccinium deliciosum*) © Wilbur Bluhm



# Rare plant puzzle

## It's back!

Our popular and enlightening “mystery” plant puzzle is back! If you can identify this plant correctly, send an email to Wally at [plants@nwplants.com](mailto:plants@nwplants.com) with the botanical name and we'll send you a high quality print of a Heidi Hansen original botanical watercolor!

Remember, you must send the correct botanical name to win. The clock is ticking--this contest ends October 30.

Here's a hint:

“Bake a nice cake and have a picnic under this beautiful tree, if you can ever find it!”

Send me an email with your answer before this contest expires on October 30. I'll send you a beautiful treat!

**Good luck!**  
*Wally*



Close-up of leaves and cone  
Photos © Donald C. Eastman





# To Do List

## Caring for your NW Native Plant Garden



*Acer circinatum* (Vine Maple)  
Photo taken last year for our  
Fall Container Sale © Wally Hansen

-- Check all your perennials while there are still some leaves. Many native perennials can be divided and Fall is a good time. If you can find separate stems with roots, you can divide off a new plant. Certainly plants such as Oxalis, False Lily-of-the-Valley, False Solomon Seal, Wild Strawberries. Red Columbine, etc. can be easily divided.

--Mulch new plants now for root protection. Don't be caught by an early, hard freeze.

--If some native deciduous shrubs grew too fast and are a bit leggy, you can prune back when the leaves are off. Shrubs should be pruned to force bushiness. If you are going to take winter cuttings from the trim, wait until December. (Be very cautious in pruning young native trees – only to correct some improper shape – never cut the leader!)

--Get your native bulbs and rhizomes in now. Sometimes it is tricky to hold bulbs in refrigeration. This may break winter dormancy too early and the bulbs and rhizomes will “think” the winter is over and start sprouting!



--For native plant gardens that are dense and newly planted, be safe from some diseases by raking leaves, pruning off dead branches and burning this trash. Diseases can winter over in damaged plant material. Better use sawdust (hardwood), bark dust, etc. as mulch.

--Plant trees this fall and winter. You do not have to wait until Spring. Fall plants are great – plantings of bareroot native plants in Jan, Feb and March are OK as long as you can work the soil. Native Plant Gardening is a 12 month “hobby” (obsession??)

These hints were originally given in Wally's newsletter in 2000. Still good today!



# Here's Sparky's Corner!

## Introducing a new editor for our NW Native Plant Journal

Well, Sparky is not really an editor, more of a contributor. This month he contributed acorns--lots of acorns! He did ask permission but I was busy and not really paying attention so I forgot to lay down some ground rules. Like where he could put the acorns and how many. As you can see, he thought lots of acorns all over the place was best. Oh well, they are at least colorful and pretty and quite plentiful in Oregon with all our beautiful NW Native Oaks.

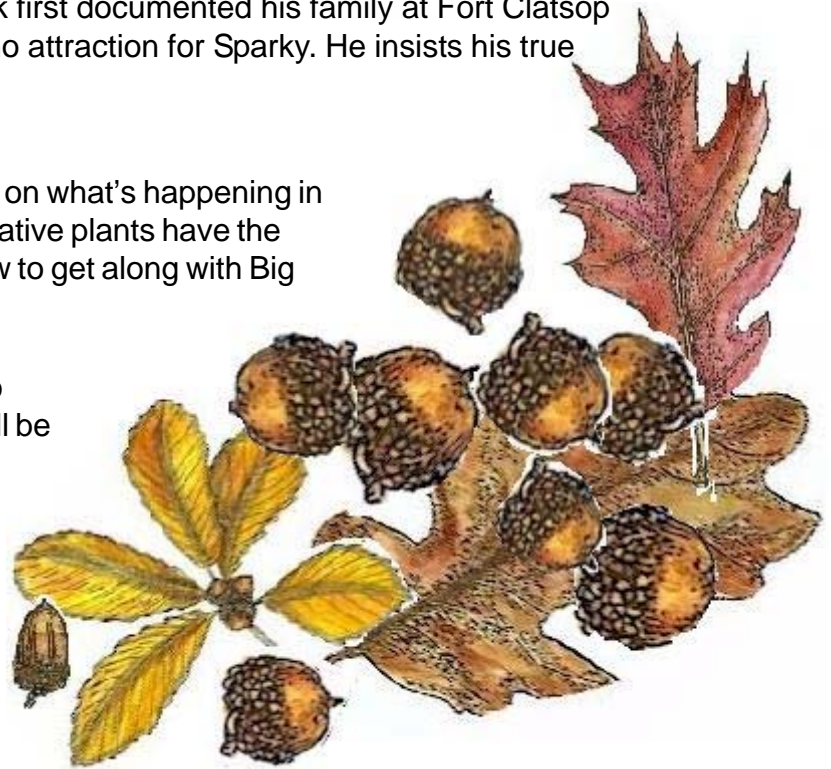
Sparky is a Western Gray Squirrel, he's just a few months old, born this year and very frisky. His ancestors have been around Oregon for hundreds of years. In fact, Lewis and Clark first documented his family at Fort Clatsop on February 25, 1806. His family name, *Sciurus griseus*, seems to hold no attraction for Sparky. He insists his true name is Sparkus le Skywalker, Sparky for short.

This frisky little guy's role here at the Journal is to keep us up to date on what's happening in the world of wildlife, especially in the garden. He'll be offering tips on what native plants have the best nuts and berries, which are the most fun to scamper around in and how to get along with Big Two-Leggers (that's what he calls people).

Check Sparky's corner right here each issue and see what he has to say. Judging by the number of acorns he contributed this time, I'm sure it will be plenty!

You can catch a glimpse of Sparky on page 22. He happened to be hanging out in the trees when Heidi was painting this watercolor and she included him in the picture. He out running around right now but I'll try to snap a photo or two before next issue.

Welcome, Sparky! We're glad you're here!



# Reviewing the Family Ericaceae

Article by Wilbur L. Bluhm, Professor emeritus  
Oregon State University Extension Service  
and Horticultural Consultant, Salem, Oregon

This article was first printed in Hortus Magazine,  
1997. Professor Bluhm has allowed us to share  
his words and photographs with you in our  
journal.

The heath family, Ericaceae, is one of the most interesting, colorful, diverse, and useful families of native plants in Western North America. The Ericaceae family includes the interesting and colorful genera of *Andromeda*, *Cassiope*, *Chimaphila*, *Cladothamnus*, *Kalmia*, *Kalmiopsis*, *Loisleuria*, *Moneses*, *Orthilia*, *Phyllodoce*, and *Pyrola*; the useful genera of *Arbutus*, *Arctostaphylos*, *Gaultheria*, *Ledum*, *Leucothoe*, *Menziesia*, *Rhododendron*, and *Vaccinium*; and the fascinating parasitic genera of *Allotropa*, *Hemitomes*, *Monotropa*, *Pityopus*, *Pleurocospora*, *Pterospora*, and *Sarcodes*. It also includes the little known genera of *Comarostaphylis*, *Ornithostaphylos*, and *Xylococcus*. The latter three, mostly uncommon to rare, are only found in southern California to northern Baja California.

**Bristly or Hairy manzanita (*Arctostaphylos columbiana*) features the distinctive, clustered, urn-shaped flowers typically found on *Arctostaphylos* species**

Photo by © Wilbur Bluhm



**The colorful, often intensely fragrant, flowers of the western azalea (*Rhododendron occidentale*) help make it a popular addition to urban landscapes as well as a favorite of plant collectors**

Photo by © Wilbur Bluhm



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# Reviewing the Family Ericaceae, continued

A brief discussion of some of the taxonomic changes within Ericaceae may be in order. While there have been many changes in variety and subspecies nomenclature, only the species level is presented. *Arctostaphylos acutifolia* was changes to *A. patula*; *a. andersonii* var. *imbricata* and var. *pallida* to *A. imbricata* and *a. pallida*, respectively; *A. crustacea* to *A. tomentosa*; *A. elegans* to *A. manzanita* ssp. *Elegans*; *A. intricata* to *A. glandulosa* ssp. *glandulosa*; *A. mariposa* to *A. viscida* ssp. *mariposa*; *A. X pacifica* (*pacifica*) to *A. glandulosa* X *uva-ursi*; *A. X parvifolia* (*parvifolia*) to *A. glandulosa* X *A. nevadensis*. Newly described species of *Arctostaphylos* include *catalinae*, *klamathensis*, *luciana*, *malloryi*, *mendocinoensis*, *nortensis*, *osoensis*, *purissima*, *regismontana* (from *andersonii*), and *wellsii*. In addition there are many subspecies and varietal changes in the genus *Arctostaphylos*; it is suggested Jepson<sup>1</sup> be consulted for these.

Species name changes of other genera include *Hypopitys monotropa* to *Monotropa hypopitys*, *Pyrola secunda* to *Orthilia secunda*, *Pyrola uniflora* to *Moneses uniflora*, *Vaccinium arbuscula* and *V. nivictim* both to *V. cespitosum*, and *Vaccinium occidentale* to *V. uliginosum* var. *occidentale*. *Ledum* species may be reclassified into the genus *Rhododendron*.

The number of species is too great to provide a taxonomic identification of them here. Instead, a discussion of the genera, some species, and some of their characteristics will be treated.

Ericaceous species have had a notorious reputation for difficulty of propagation, production, and performance. Slowly over a period of years, new techniques for propagation and production are developing for a number of the species. Many have been difficult to grow in landscape settings and other uses,



**White rhododendron (*Rhododendron albiflorum*)  
is notoriously difficult to propagate.**

Photo by © Wilbur Bluhm

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# Reviewing the Family Ericaceae, continued

but performance is slowly improving with repeated trial and experience. Many have quite specific soil and water requirements. An acidic, well-drained, moist or even wet, soil is a common need for many; others require a dry, very well drained soil. Ericaceous species, generally, are quite susceptible to several species of *Phytophthora* pathogenic fungi. *Phytophthora* spp. continue to be a challenge, although fungicidal developments and improved growing practices during the past 20 years are helpful.



## The Genus *Arctostaphylos*

The genus *Arctostaphylos*, commonly known as manzanita, consists of evergreen woody shrubs, small trees, and groundcovers.

**The Pacific madrone (*Arbutus menziesii*) is a beautiful, but messy, addition to manicured urban landscapes—it drops bark flakes, leaves, twigs, flowers and fruit. It does best in natural settings when left to grow on its own. Photo inset shows a close-up of the flowers.**

Photo by © Wilbur Bluhm



The name manzanita comes from Spanish for “little apple” because of fruit shape. The satiny, richly colored bark is of a reddish, brown, or mahogany hue.

Manzanitas often have a most interesting crooked, curved, or arched branching pattern. The leathery leaves, common to all species, vary from pale or bright gray-green to darker shades of green. Flowers are typical ericaceous urn-shaped in terminal panicles or racemes, white to pink, rose, or purplish, and in clusters. Fruits which follow turn from green to shades of red, orange, or rust, providing further interest and color.

*Arctostaphylos* is, by far, the most species-prolific genus of all western America ericaceous genera. Jepson<sup>1</sup> lists 57 species and 38 subspecies for California alone. Only eight of the California species – *canescens*, *columbiana*, *glandulosa* ssp. *glandulosa*, *hispidula*, *nevadensis*, *patula*, *uva-ursi*, and *viscida* – grow north into Oregon, and of these only four – *columbiana*, *nevadensis*, *patula*, and *uva-ursi* – grow into Washington. One, *A. pungens*, is localized in Montana. Hitchcock<sup>2</sup> lists but one species; *A. alpina* possibly

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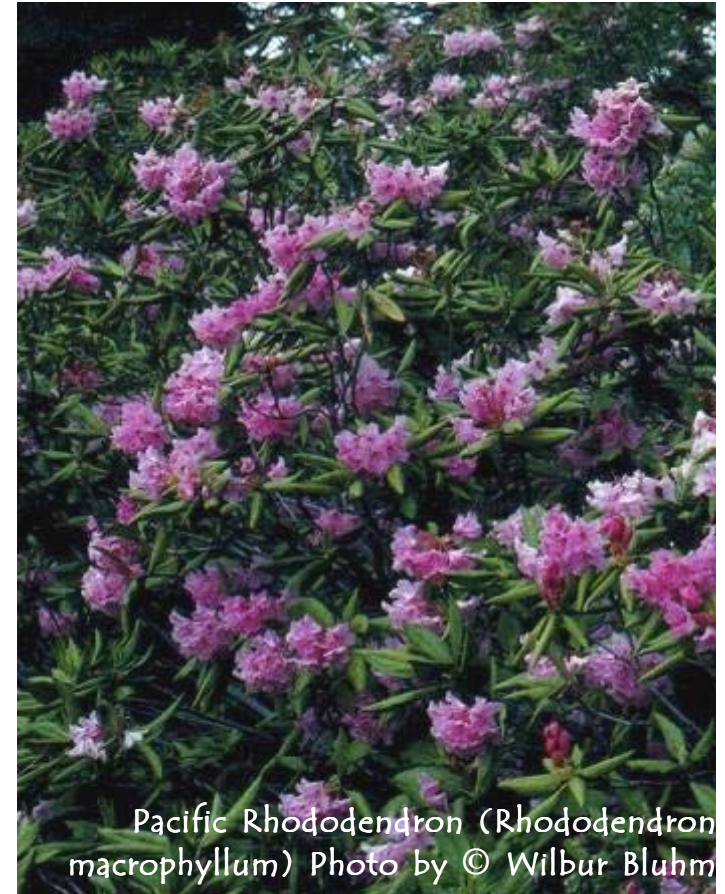


# Reviewing the Family Ericaceae, continued

found in Montana, and one hybrid, *A. X media*, found in Pacific Northwest that are not found in California. Huxley<sup>5</sup> says the two most widely distributed species are *A. alpina* and *A. uva-ursi*. *A. alpina* is circumpolar and *A. uva-ursi* is found in North America and Eurasia.

The manzanitas are among the most useful and used ericaceous plants in Western North America. At least 60 species and subspecies are in cultivation in California. Most require sharp drainage, need no irrigation or are intolerant of irrigation, and are best in full sun. Only a few species, such as *A. canescens* ssp. *canescens*, *A. nevadensis*, *A. nortensis*, *A. nummularia*, *A. stanfordiana* ssp. *stanfordiana*, and *A. uva-ursi*, benefit from irrigation and, in warmer climates, at least some shade. Manzanitas are especially useful in reclamation, landscape, and other plantings where their natural growing conditions can be provided. Once established in a suitable growth environment manzanitas are handsome and enduring plants, requiring little attention.

*Arctostaphylos uva-ursi* (kinnikinnik or bearberry), the most widely planted species of the genus, is used as a groundcover. A number of well-performing cultivars, such as 'Anchor Bay,' 'Emerald Carpet,' 'Massachusetts,' 'Point Reyes,' 'Radiant,' 'Vancouver Jade,' and 'Vulcan's Peak,' are each suited to certain areas of the West. The successful propagation and production of kinnikinnik has significantly improved during recent years with use of improved cultivars and new techniques and practices, one of them being introduction of mycorrhizae into media<sup>4</sup>. Use of appropriate mycorrhizal fungi may be helpful with other *Arctostaphylos*, both in production and field establishment.



Pacific Rhododendron (*Rhododendron macrophyllum*) Photo by © Wilbur Bluhm

## The Rhododendrons

Three species of *Rhododendron* are native to the West: *R. macrophyllum*; *R. occidentale*; and *R. albiflorum*. Of the three, *R. occidentale* is commercially the most important.

*Rhododendron occidentale* (western azalea) has a wide distribution, from southwest Oregon to San Jacinto Mountains of Riverside County, California. Its habitat is in moist thickets, along streams, in or near seeps, and other moist to nearly wet places. Western azalea is a

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# Reviewing the Family Ericaceae, continued

densely branched deciduous shrub from 3-10 feet tall (approximately). The somewhat irregular funnel-shaped flowers, pink to rose in bud, then white with yellow and pink markings inside, pink on outside of tube, are outstanding. Flowers are often intensely and pleasantly fragrant. The colorful, fragrant flowers make the western azalea a most attractive plant when in flower.

Western azalea flowers have attracted plant collectors and breeders worldwide. The commercially important Exbury azaleas are among a number of azalea hybrid strains in which *R. occidentale* was used to impart color, fragrance, substance, and other desirable qualities.

A number of western azalea cultivars are in the trade. Perhaps most important are the selections of Britt Smith and Dr. Frank Mossman of Washington state. Their selections, which have come from southwest Oregon, and Stagecoach Hill and Crescent City/Eureka areas of northwest California, possess variety of color, fragrance, substance, and form. Some of their cultivars are 'Crescent City Double,' 'Humboldt Picotee,' 'Leonard Frisbee,' 'Miniskirt,' 'Stagecoach Frills,' etc. However, some of their still-numbered selections are of equal desirability. My personal favorite is No. 502, the parent of which Dr. Mossman led me to see on Stagecoach Hill three years ago.

*Rhododendron macrophyllum* (Pacific rhododendron or California rose-bay) is found from northern Monterey and Santa Clara Counties, California, northward along the coast, Coast Ranges, and Cascade Mountains at low to middle elevations in Oregon, Washington, and British Columbia. Coastal thickets and openings in moist coniferous forests of the mountains are typical habitat.

Pacific rhododendron is an evergreen shrub, sometimes tree-like, 5 to 15-25 feet tall. Leathery leaves, to 8 inches long, are generally oblong. Flowers are in terminal clusters, each campanulate, white to pale pink to rose or rose-purplish in color. It is easily and commonly grown in Pacific Northwest west of Cascades, though it is often surpassed in color, fragrance, plant form, and other desirable traits by many hybrid rhododendrons in the trade. Its best use is in the native garden or natural woodland setting.



**The uncommon evergreen plant, western leucothoe (*Leucothoe davisiae*), is native to northwest California and southwest Oregon.**

Photo by © Wilbur Bluhm

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# Reviewing the Family Ericaceae, continued



*Rhododendron albiflorum* (white rhododendron or cascade azalea) is a deciduous slender-branched shrub 3-6 feet tall with bright green leaves to 4 inches long. Flowers are clustered 1-4 in leaf axils. It grows in the high mountains from near Mt. Jefferson in Oregon northward through Washington into British Columbia.

Kruckeberg<sup>6</sup> says, "Nature tantalizes us with this beautiful shrub. Lovely cream bells and bright green foliage mark it as a great beauty in the upper montane forest of mountain hemlock and subalpine fir. Yet successful establishment of *Rhododendron albiflorum* seems next to impossible." "Next to impossible" propagation and establishment precludes use of this species.

## The Gaultherias

Of the four species, *Gaultheria shallon*, *G. ovatifolia*, *G. humifusa*, and *G. hispidula*, only the first is of major importance. *Gaultheria shallon* (salal) is commonly used in landscapes, woodland projects, and other places which are similar to its native habitat. It naturally grows in moist to dry woods, from lowlands to lower mountains, from near Santa Barbara County, California northward to Alaska, east to the base of the Cascades, and west to the coast. Northward it can be planted in more exposed sites such as road banks and south facing slopes.

Salal is a leathery-leaved evergreen shrub 15 inches to a lofty 15 feet in its northern coastal range. Its clusters of urn-shaped white to pink flowers, followed by bluish-black edible fruits complement its attractive foliage. Once established it readily spreads.

*Gaultheria ovatifolia* (Oregon wintergreen) and *G. humifusa* (alpine wintergreen) are small, prostrate evergreen charmers growing at higher elevations from Northern California to British Columbia and east of Idaho. *G. hispidula* (creeping snowberry) is a bog and deep forest grower in northern Washington and Idaho into Canada. They can be difficult to grow, but easier in their more northern range.

**Menziesia ferruginea** has many common names such as mock or false azalea, fool's huckleberry, rusty leaf and rusty manzanita.

Photo by © Wilbur Bluhm

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# Reviewing the Family Ericaceae, continued

## The Pacific Madrone

*Arbutus menziesii* (Pacific madrone or madrona) grows in dry areas from Baja California to British Columbia. In California its range is more coastal, west of Sierra Nevada and Cascade Mountains northward. It's a handsome tree with shiny evergreen, 4-5 inch leaves, and flaking bark which reveals a satiny smooth chartreuse to tan to deep red, becoming dark brownish-red, bark. Clusters of white urn-shaped flowers, followed by 1/3 inch miniature orange-like fruits, decorate the tree during the growing season and into fall.



The madrone is not easy to grow or maintain. It seems to have a distaste for civilization and the attendant care. Irrigation, lawn mowers, and compacted soil are its anathema in the Northwest. It's messy in manicured landscapes, with year-round dropping of something – bark flakes, leaves, twigs, flowers, fruit. The madrone is prone to insects and diseases, though neither are often life-threatening to a normally vigorous tree in nature. It is best in natural settings left to grow on its own. This means dry, well drained sites in sun, often in association with conifers or other trees. In warmer and drier parts of the West, the madrone can benefit from discretionary irrigation and some shade of nearby trees.

## Lesser Known and Used Ericaceae

This group, of about a half dozen genera, is not commonly used throughout the West, though any one species may be locally common. Difficulty in growing has relegated some to a lesser role.

Probably best known are the *Vacciniums*. A dozen species are native to the West. Perhaps none has more potential than *Vaccinium ovatum* (evergreen huckleberry) essentially a coastal native from Southern California to British Columbia. It is an attractive evergreen shrub, 2-4 feet in height, and useful for landscape and natural woodland settings. Shrubby deciduous *Vacciniums* to consider include *V. parvifolium* (red huckleberry); *V. alaskaense* (Alaska blueberry); and *V. membranaceum* (big huckleberry).

**Pinesap (*Monotropa hypopitys*) is a parasitic species which obtains its nutrition from green plants, often conifers, through fungal intermediates known as mycorrhizae.**

Photo by © Wilbur Bluhm

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# Reviewing the Family Ericaceae, continued



**Pine Drops (*Pterospora andromedea*)**

Photo by © Wilbur Bluhm

*Andromeda polifolia* (bog rosemary), is a delightful little evergreen shrub, from 6 inches to a foot or more, native from British Columbia to Alaska and eastward. It is especially attractive with clusters of pink urn-shaped flowers. Prized by many, it is readily grown in nurseries but when planted out beyond its natural range seldom survives for more than a year or two. It needs a boggy or wet soil.

*Leucothoe davisiae* (western leucothoe) an uncommon evergreen plant, growing to a couple feet in height, is native to northwest California and southwest Oregon. Its flowers, like little white goblets, appear in racemes above the foliage in spring. It adapts to moist, semi-shade conditions in the Northwest, probably becoming increasingly difficult southward.

*Cladothamnus pyroliflorus* (called copper bush for its salmon- or copper-colored, flat open flowers) is montane from northwest Oregon to Alaska. This uncommon deciduous 2-5 feet tall shrub grows in moist forests and along stream banks. A neat shrub, it is slow to establish in a peaty, damp site of the garden.

*Kalmiopsis leachiana*, discovered by Portland plant enthusiast Lilla Leach in 1930, is one of few plants to have a wilderness area named for it. Found in Kalmiopsis Wilderness and in upper Umpqua River drainage of southwest Oregon, it is a compact evergreen, floriferous shrublet to a foot tall. Very attractive in flower, its numerous rose pink blooms are flattish and about 3/4 inch across. Exacting growing needs virtually relegate *Kalmiopsis* to the rock garden, especially southward in the West.

Another choice rock garden plant *Loiseleuria procumbens* (alpine azalea), is circumboreal, including the Cascades of British Columbia and northern Washington state. This prostrate evergreen shrublet, hardly 4 inches high with 1/4 inch leaves, needs a cool and damp place in the rockery. Flowers, in clusters, are rose to white, bell-like, and upright in the cluster.

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# Reviewing the Family Ericaceae, continued

There are those who contend the *Ledums* are really rhododendrons. Whatever, the two species, *Ledum glandulosum* (trapper's tea) and *L. groenlandicum* (bog Labrador tea), are creditable landscape plants. The aromatic crushed foliage – said to have narcotic properties – can, with care, be brewed as tea. Both are evergreen with leaves to 2 ½ inches long, and naturally grow in bogs, seeps, and swales along coast from Oregon to Alaska and inland in mountains of British Columbia, Washington, Idaho, Montana, and Wyoming. Round clusters of white flowers, at end of branches, are showy. While a moist peaty site is preferred, they will perform with adequate moisture in a good garden soil in western Oregon and northward.

*Menziesia ferruginea* has many common names – mock or false azalea, fool's huckleberry, rusty leaf, and rusty menziesia. Despite the names, it is a plant of its own character. A deciduous 6-10 feet tall twiggy shrub, its leaves are clustered at tips of twigs. Flowers in terminal clusters are each urn-shaped, greenish white or pinkish to, more commonly reddish yellow, reminding one of *Enkianthus*. Mock azalea is at home in moist conifer woods northward from Fresno County, California along the coast to Alaska, in mountains of Pacific Northwest and east to Rocky Mountains.

## The Alpine Heathers

Two genera of mountain heathers, *Cassiope* and *Phyllodoce*, are found in the West and are heather-like rather than true heathers. All are showy and grow in moist places at higher elevations in the Cascades of northern California to Alaska, and eastward in the Rocky Mountains. Of the three *Cassiope* species, *mertensiana*, *stelleriana*, and *tetragona*, only *C. mertensiana* grows south of northern Washington; it grows to the northern Sierra Nevadas. Flowers of *Cassiope* species are generally white, occasionally pinkish. Foliage of *C. mertensiana* resembles that of true heather, *Calluna vulgaris*.

Three *Phyllodoce* species *breweri*, *empetriformis*, and *glanduliflora*, are found in the West. *P. breweri* is specific to San Bernardino Mountains, Sierra Nevadas, and southern Cascades of California. *P. empetriformis* (red mountain heather), has a wider range, from Cascades of northern California to Alaska, east to Alberta, Montana, and Wyoming. The range of *P. glanduliflora* (yellow mountain heather), is similar except its range does not extend south of Oregon Cascades. Flowers of *P. breweri* and *P. empetriformis* are cup-shaped, pink to rose-purple. The urn-shaped inverted yellow flowers of yellow mountain heather remind one of the heads of miniature little pigs. Foliage of all three is similar to the true heaths, *Erica* spp.

The alpine heathers are difficult, require fastidious conditions and care for success in cultivation.



**Copper Bush**  
**(Cladothamnus pyroliflorus)**

Photo by © Wilbur Bluhm

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# Reviewing the Family Ericaceae, continued

## Other Interesting Ericaceae

Five other ericad genera – *Chimaphila*, *Kalmia*, *Moneses*, *Orthilia*, and *Pyrola* – are interesting but nearly impossible in cultivation. A number of species of the five are indigenous to western mountains, from California northward. All generally grow in moist coniferous woods, some at higher elevations. *Kalmia* species prefer bogs and moist to wet meadows, *K. microphylla* in higher mountains and *K. polifolia* at lower elevations, often coastal. *Pyrola asarifolia*, with its pink to rose flowers, and *P. picta*, white flowers and white leaf veins, are quite colorful. *Orthilia secunda* (one-sided wintergreen) is a neat 6-10-inch plant of moist woods in higher mountains, *Chimaphila umbellata* (prince's pine or pipsissewa) and *C. menziesii* (little prince's pine or little pipsissewa) are intriguing beyond their names. Both are little gems in coniferous forests, their pink to red flowers hanging downward in modesty at tips of stems. Through its common name, *Moneses uniflora* (woodnymph) speaks for itself.



## The Parasitic Ericaceae

No native Ericaceae are more colorful or fascinating than those of the parasitic genera – *Allotropa*, *Hemitomes*, *Monotropa*, *Pityopus*, *Pleuricospora*, *Pterospora*, and *Sarcodes*. *Pyrola aphylla* (leafless wintergreen), actually leafless forms of *P. asarifolia* and *P. picta*, are sometimes included. Virtually all are uncommon to rare. All are found in open woods to deep forest, usually where moist, from California northward except as noted.

These plants have one thing in common. All obtain nutrition from green plants, often conifers, through fungal intermediates known as mycorrhizae. Formerly they were thought to be saprophytes, but their parasitic nature has been rather thoroughly researched in recent years.

Their common names are almost as fascinating as the plants themselves. The red and white striped *Allotropa virgata* (candy stick or sugar stick) is sweet to the taste. *Hemitomes congestum* (gnome plant) an inch-high folklorish dwarf, pink upon emerging, later aging straw color and to heights of 2-5 inches or more.

**Alpine Laurel (*Kalmia microphylla*) grows in bogs and moist to wet meadows. It generally does not respond well to cultivation.**

Photo by © Wilbur Bluhm

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# Reviewing the Family Ericaceae, continued

The pinkish to straw color *Monotropa hypopitys* is “pinesap” to most of us. Its species mate, *Monotropa uniflora* (Indian pipe), truly resembles a white inverted Indian peace pipe, 2-10 inches high.

*Pityopus* means “pine foot” in Greek, and *Pityopus californicus* (pine foot) is a deep forest plant light yellow to pinkish, beginning small and maturing from 2-10 inches. It is one of rarest of the rare. Pine foot grows north to western Oregon. *Pleuricospora fimbriolata* (fringed pine-sap or Sierra sap) is “yellowish cream-colored,” 2-4 inches tall at maturity. It’s also a deep forest plant, emerging from the duff.

Last of plants with a “pine” name, *Pterospora andromedea* (pinedrops), is much the larger, from 1-3 ½ feet at maturity with flowers of urn-shaped bells hanging downward for half or more of its height. Yellow to reddish in color, it grows in less moist coniferous forests, often under ponderosa pines.

*Sarcodes sanguinea* (snow plant), bright red to orange-red, is perhaps the most spectacular of the parasites. The flower bells match the stem in color. It reaches 6-24 inches at maturity. The name “snow plant” is apparently derived from its emergence with the receding snow in spring. Snow plant is found north only to southwestern Oregon.

## Summary

There remain a number of ericaceous plants whose beauty has been discovered but whose “taming” is still a mystery. Even among those now in cultivation, much is still to be learned toward better production and performance. There are many challenges and opportunities to select improved strains, develop more effective propagation techniques and nursery methods, and improve establishment and performance in this family of beautiful and fascinating plants.



**The urn-shaped inverted flowers of yellow mountain heather (*Phyllodoce glanduliflora*) resemble the heads of miniature piglets.**

Photo by © Wilbur Bluhm

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# Reviewing the Family Ericaceae, continued



Western or Pacific Rhododendron  
(*Rhododendron macrophyllum*)

Photo by © Wilbur Bluhm

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# NW Native Plant Fall Color

## Where to see Fall's Rainbow of Colors

As the foliage changes colors in autumn, take a drive or a walk or bike ride along highways, byways and trails. You'll see Northwest native plants in the heartwarming colors of red and gold, crimson and bronze, rich brown and orange.

We found some excellent resources for timely reports on just where to go.

Some routes to travel:

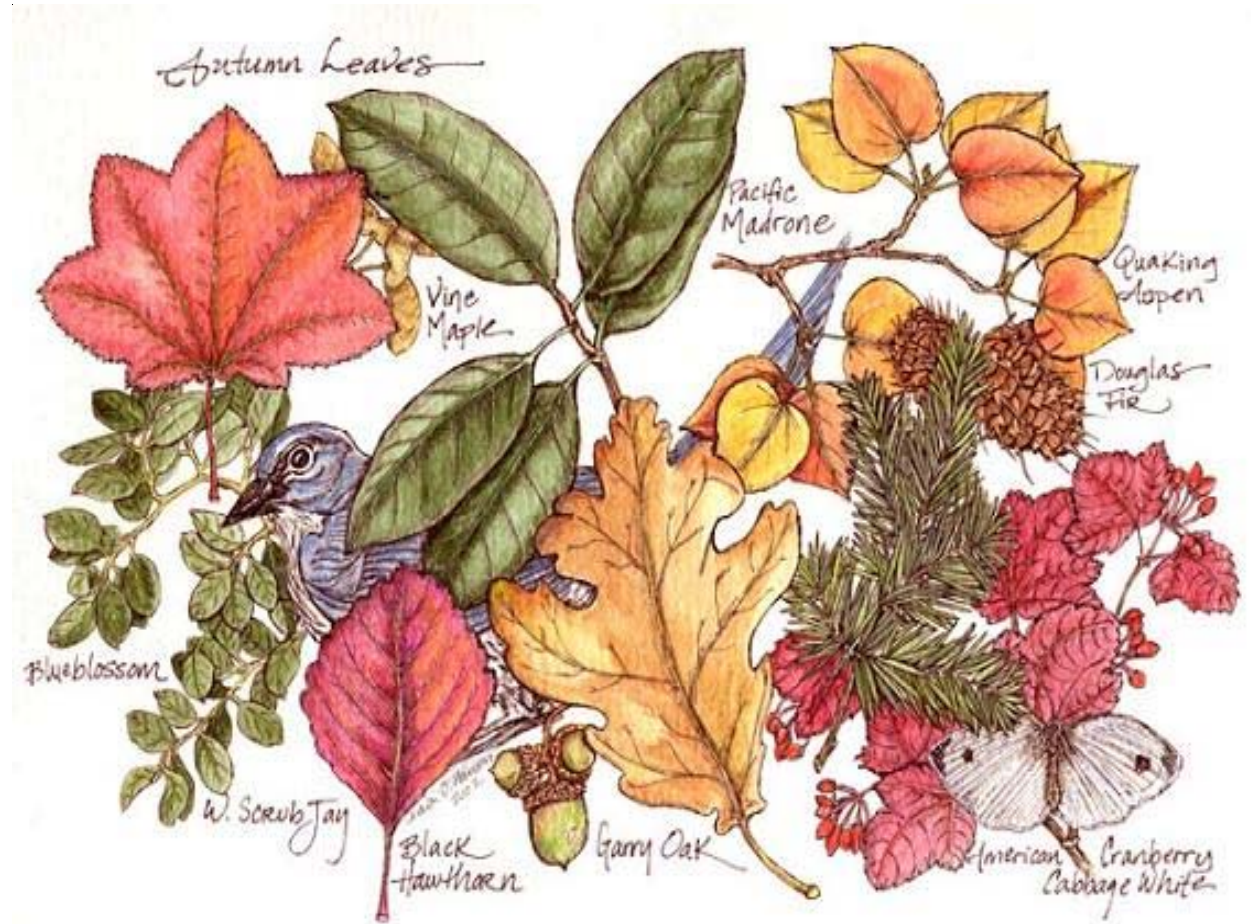
Columbia Gorge, Hwy 126 along the  
McKenzie River also has  
covered bridges.

Multnomah Falls  
Lost Lake  
Willamette Valley wine country

In the Portland area, see

Washington Park  
Japanese Gardens  
Dawson Creek Park  
Tualatin Hills Nature Park

Keep your eyes open wherever you go! You're sure to spot beautiful color on the way to school or work or the post office. NW Native Plants aren't just in the woods anymore!



Painting © Heidi Hansen

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# NW Native Plant Fall Color, continued

**Oregon Live** website has a lovely article by M.J. Cody dated September 26, 2004, In search of fall colors. Go to:

<http://www.oregonlive.com/willamettevalley/oregonian/related.ssf?/willamettevalley/oregonian/040926colors.html>

**GORP.com** bills themselves as “your encyclopedic resource for outdoor recreation—hiking, biking, rafting, camping, fishing, and more. With information on attractions, outdoor gear, adventure travel, and national parks and wilderness areas, GORP.com is the web’s best place to start your journey into the great outdoors. See where they recommend viewing fall color at:

[http://gorp.away.com/gorp/location/or/fall/or\\_fall.htm](http://gorp.away.com/gorp/location/or/fall/or_fall.htm)

**Sunny Walters Northwest Nature Weekends** offers several tips on where and when to see fall foliage. Go to website at:

<http://www.sunnywalter.com/WhereView-WNW-WildflowerLinksNW.html#Oregon>

**Pacific Northwest Region USDA Forest Service,**

Autumn colors 2004:

<http://www.fs.fed.us/r6/fall-colors/>

**Weather.com** has Fall Foliage Reports from various ranger districts.

See:

[www.weather.com](http://www.weather.com):

Here’s a sampling:

**Mount St. Helens Ranger District - September 22, 2004**

Fall colors will begin to make their visual presence throughout the Mount St. Helens area as September goes out and October rolls in. Lower elevation (under 1000 feet) will begin changing later in the month and early October. The following is a list of roads and or trails where you can go to enjoy these fall colors.



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# NW Native Plant Fall Color, continued

- Forest Road 90: From the Pine Creek Information Station (16 miles east of Cougar) to Forest Road Junction 88 and 23.
- The entire length of the 90 Road probably has some of the finest fall color variation due to elevation and species growth on both sides of the road. Road will remain accessible until snow depths make it impassable. Some trails which offer a close and personal observation include; Lewis River trail #31, Curly Creek/Miller Creek Falls #31A, Big Creek Falls #28, at Lower Falls Campground, and Cussed Hollow #24.
- Curly Creek Road: Five miles (one way) from the 90 Road junction to the 30 Road junction, this includes the McClellan Viewpoint.

## Cowlitz Valley Ranger District - October 14, 2004

On the Cat Creek end of Forest Road 21, there is plenty of fall color to be seen. To reach this area, take Forest Road 23 south of Randle; this will take you to the junction of Forest Road 21 about 16 or 17 miles out from Randle. Keep following Forest Road 21 to Forest Road 2160 and go up into the Walupt Lake area for more color. While in the area continue to drive north on Forest Road 21 and turn right on Forest Road 2150 and check out the Chambers Lake area.



The area near Takhlakh Lake offers a pretty display of color too. Drivers may take Forest Road 23 south of Randle and turn left on Forest Road 2329.

More fall color viewing can be found by heading east from Randle on US Hwy 12 through the town of Packwood. Continue driving for a few miles and watch on your left for Forest Road 45. Turn left off the Hwy and follow the signs Forest Road 4510 and to Soda Springs and Summit Creek Campgrounds. This area has some great fall color. You will have to drive to reach these areas, but the reward of seeing some of Cowlitz Valley Ranger District's most beautiful areas makes it well worth while.

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Painting © Heidi Hansen



# NW Native Plant Fall Color, continued

**Convention & Visitors Association of Lane County, Oregon** has a travel guide for not only Lane County but the Oregon Coast, Willamette Valley, Eugene and Springfield, McKenzie River Valley and the Cascade Mountains. A special article on fall foliage can be seen at:

<http://www.cvalco.org/fall>

However, this site lists these two hotlines which I tried with unexpected results:

Oregon Fall Foliage Hotline 1-800-547-5445 (I called this one evening and got a recording stating that the office was closed. You may be able to talk to a person during standard office hours—Monday-Friday, 8am-5pm)

Washington Fall Foliage Hotline 1-800-354-4595 (I called this one and got a recording about Alaska's fall foliage, not Washington's. The same phone number is listed on the USDA website. If you are interested in Alaska's foliage, it is good information but doesn't help at all for Washington!)

**Portland CitySearch** is an internet search service that gives all kinds of information about areas based on zip code:

<http://portland.citysearch.com/>

**About.com** is a "Human Internet" with information from real people sharing what they know. At the following web address you'll find fall foliage in Washington:

<http://seattle.about.com/cs/daytrips/a/fallfoliage.htm>



Painting © Heidi Hansen



# The Transformation of a Garden

By Jennifer Rehm

Once a common landscape in Salem, Oregon, a determined woman transforms her yard to a NW Native masterpiece (I hope).



Rob cleans up the edges.  
Photo © 2004 Jennifer Rehm

When we left the project last issue, the plastic mulch had been removed and 2 yards of organic compost was spread over the ground to improve the soil.

We (yes, it's turned out to be a family project with me as the director and my two teenage grandsons providing most of the physical energy) had planned to get 3 loads of mint compost from a source in Corvallis as our next step. The guys were going to shovel each load into a big pile in my yard and then spread it out the following Tuesday.

As everyone knows, a woman's prerogative is to change her mind and I am certainly no exception. After thinking about driving back and forth between Corvallis and Salem three times with a load of mint compost I wondered how much it would cost to have it delivered. Guess what? If you buy 5 yards or more they deliver for only a nominal fee--\$18! Now that's a bargain I could not refuse. I promptly ordered the requisite 5 yards and arranged delivery for Saturday, September 25, between 1 and 2 pm.

**Sept 25:** Sure enough, the truck arrived right on time and waited pleasantly while I raced inside to get my camera (had to capture the moment of course). The driver was very nice, even paused in the dumping so I could get an extra couple of shots. The compost was hot as the photos will attest. For the uninitiated compost user, that's a good thing!

Justin, the younger member of the work crew, spiffed up the puncturing tools while he was visiting Saturday. All that remains is to spread the mint, replace the plastic and poke some new holes for ventilation. The project will be ready to rest for the winter.

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# Transformation, continued

**Sept 26:** When I drove home this balmy afternoon I had the windows down in my vehicle. As I approached my house I could smell the mint. Hope the neighbors are enjoying this as much as I am. It smells so good!

I've been thinking about the way the soil looked when the plastic mulch was removed. I noticed a phenomena that surprised me though I should have expected it. Around the edges of where the plastic was and also wherever there were good ventilation holes, huge earthworms were working heartily. Where no holes existed in the plastic, the ground was dry and hard and no worms were present at all. I had been considering whether or not it would be necessary to turn the dirt in the spring before planting but this worm deal has really got me considering another method. I believe if, after the guys spread out the mint, they wet it down thoroughly, replace the plastic and then we make sure there are good drain holes all over it, those worms just might do all the turning work for us. Worm bins are a great way to get rid of household compostables and their byproduct is excellent soil amendment. Those worm castings (that's worm do-do) are rich in nutrients. So if we set the yard up correctly I do believe it will in effect be one giant worm bin. So that's what we're going to do. I'll explain this theory to Robert and Justin (the guys) when they come over on Tuesday.

**Sept 28:** The crew came over after school as planned, changed into their favorite work clothes (jeans and white t-shirts and old shoes) and went to work. One guy hauled wheelbarrows full of mint to the edges of the yard while the other one spread it out. This material was still hot so when they lifted a shovel-ful it was still steaming.

One of the neighbors came over to see what was happening and Rob explained it to her. She said "that's wonderful!" and is looking forward to seeing the finished product. Everyone has been most supportive to our project, especially seeing how easy it's been. They are beginning to realize what little it takes to completely change an ordinary space into something quite unusual. Wait until they see it when it's done!



*A heap of Mint. Photo © 2004 Jennifer Rehm*

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# Transformation, continued

After spreading the mint over the regular compost, the guys finished up the edging along the driveway and the street. Then they watered everything down well--not soggy but definitely damp. Last of all, they put the plastic back down neatly, overlapping the seams and pounding wire hoops into the ground to staple the plastic to the earth. They brought the edges right up to the trees and the old flowerbeds around the house.



Hi-tech aeration tools.  
Photo © 2004 Jennifer Rehm

The final step was to completely aerate the plastic mulch. We did this using those high-tech aeration boards. I took the first shift, and it was surprisingly easy. Having a board on both feet wasn't such a good idea, too unstable, so I used one board and Justin used the other one. My method was stepping along, sort of a step, push, step, push rhythm. Justin, being rather innovative and full of energy, tried a stomping approach. I left him at it and went off to answer the phone. When I came back outside he had one board in each hand and was crawling around on the plastic pounding those nails through the plastic as fast as he could go. And he was fast! I never saw anything quite like it. His official name is now The Perforator! In no time at all he had the whole stretch of plastic well-aerated.

And now we're done until spring. The leaves have begun to fall on the plastic but that's fine. I'll leave them right where they are. They'll add warmth and moisture on top of the plastic, and help to keep those earth movers working hard all winter. Next month I'll show you some of the possible designs for the new natural garden in my front yard--a NW Native Plant paradise!

## How much did it cost?

Here's the itemized price list for everything so far.

### Materials:

Black plastic, 250 x 20 ft roll	\$35.00
Fasteners	\$12.50
Organic compost, 2 yards @ \$18 per yard	\$36.00
Mint compost, 5 yards @ \$16 per yard plus distance fee for delivery	\$98.00

<b>Total Materials</b>	<b>\$181.50</b>
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### Labor:

Initial laying of plastic	\$10
Spreading compost	Trade 4 hours of computer work

<b>Total Labor</b>	<b>\$10</b>
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<b>Grand Total</b>	<b>\$191.50</b>
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# Transformation, continued



1



2



The mint is here!!!

1. Backing up between the trees

2. Truck bed rises slowly toward the sky

3. The load pushes the tailgate open

4. Truck pulls away leaving a perfect, steaming pile of compost



3



4



Photos © 2004 Jennifer Rehm

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# Transformation, continued



Spreading a thick layer of aromatic mint



Justin hoses down the yard. The water will bring the earth movers (worms).



Covering it all up again, Rob hammers home the hoops to secure the plastic mulch



Hot compost-  
-3 days after delivery it's still cooking!  
That's great stuff!

Photos © 2004  
Jennifer Rehm

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# Transformation, continued



Strapping on the  
perforation tools

However you use  
them, the aerator  
boards work!



High style  
work shoes!



← Justin tries the stomp-  
ing technique . . . But decides  
a hands-on approach is best.  
Look out! It's  
The Perforator!!! →



Photos © 2004 Jennifer Rehm

# Useful Plant Databases on the Web

Here is a good collection of web data bases that will be useful to professional growers and all native plant gardeners. This list is from a larger list compiled by Lawyer Nursery in 2002 and published in one of their flyers. I wish to thank them for this public service.

*Wally*

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## **American Bonsai Society**

[http://www.absbonsai.org/abs\\_home.html](http://www.absbonsai.org/abs_home.html)

## **Bonsai web**

<http://www.bonsaiweb.com>

Portal of links to educate about the art of bonsai.

## **CalPhotos**

<http://elib.cs.berkeley.edu/photos/>

Over 33,000 plant images from the University of California, Berkley

## **Cornell University online grafting course**

<http://instruct1.cit.cornell.edu/courses/hort494/graftage/hort494.index.html>

## **Fire effects on plant species**

<http://www.fs.fed.us/database/feis/>

USDA, Forest Service site.

## **Flora of North America Web Site**

<http://hua.huh.harvard.edu/FNA/>

Taxonomic relationships, distributions, and morphological characteristics of all plants native and naturalized found in North America.



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# Useful Plant Databases on the Web, continued

## **Bonsai web**

<http://www.bonsaiweb.com>

Portal of links to educate about the art of bonsai.

## **Fire effects on plant species**

<http://www.fs.fed.us/database/feis/>

USDA, Forest Service site.

## **Forest Types of the United States**

<http://forestry.about.com/library/tree/bltypdex.htm>

Maps of the most common forest types.

## **Forestry index**

<http://forestryindex.net/>

Links to news & info on the forestry industry.

## **Cornell University online grafting course**

<http://instruct1.cit.cornell.edu/courses/hort494/graftage/hort494.index.html>

## **Growit.com Rooting Database**

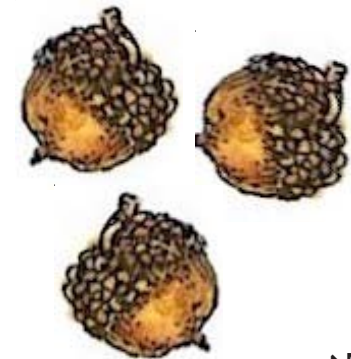
<http://www.growit.com/Know/Rooting.htm>

"Extensive information on rooting cuttings of woody plants, organized by botanical name. Developed for commercial growers."

## **The Native Plant Network**

<http://nativeplants.for.uidaho.edu/network/>

Information on how to propagate native plants of North America.



⇒ More ⇒

# Useful Plant Databases on the Web, continued

## **Woody Plant Seed Manual**

<http://www.wpsm.net/>

Manual by the US Forest Service covering seed biology, genetic improvement of forest trees, seed testing, certification of tree seeds and other woody plant materials, and nursery practices.

## **River Corridor and Wetland Restoration**

<http://www.epa.gov/owow/wetlands/restore/>

Environmental Protection Agency (EPA) site

## **Soils**

<http://homepages.which.net/~fred.moor/soil/links/10102.htm>

A website about soil fertility, chemistry, and pH with many interesting links.

## **Soil Science Society of America**

<http://www.soils.org/>

Website for soil science professionals. Offers information and links.





# Coming next issue:

## November Journal--Getting ready for winter



What to do in the garden



What to harvest now and why



A new plant puzzle



Plans for our landscape makeover project



And more from Sparky! (We hope it's not more acorns!)



White-leaved Manzanita  
(*Arctostaphylos viscida*)  
Photo © Wilbur Bluhm



# Personal notes from Wally

## On Taming The Fairy Slipper

From around the world in Northern Climes,  
Alaska, Labrador, Norway – East and West  
The little Orchid of the cool, damp Forests  
- Daughter of Aurora Borealis – *Calypso bulbosa*!  
When cool days and long nights return in the Fall  
You send one leaf up from your summer sleep  
And bravely hold your place till Spring  
Then , miracles and wonders –  
The beautiful exotic Fairy Slipper displays again  
Her Royal Purple raiment, proof positive  
Of Royal Heritage and superior Social Order.  
Unseen tiny Woodland Fairies, dance attendance -  
The Giant Firs and Spruce bow to her sovereignty  
For one month this beauty reigns  
Then sinks below the moss  
As warms days and short nights loom.  
And I, in my humble nursery, vow to subdue this  
Wild Beauty and make her grow against her will  
In neat nursery rows, pampered  
Prim and proper still, but free no more  
And if I do, how will I feel? - Perhaps  
To free her once again before I sink below the moss?

Wally



*Calypso bulbosa* (Fairy Slipper)  
Photo at the nursery © 2004 Jennifer Rehm





**NOTICE: NURSERY IS CLOSED**

In November 2010,  
Wallace W Hansen Northwest Native Plants  
Native Plant Nursery and Gardens  
closed permanently.



Many thanks to all our gardening friends  
for your interest in the native plants of  
the Pacific northwest. It has been our  
pleasure to serve you.



**[www.nwplants.com](http://www.nwplants.com)**

Our website, [www.nwplants.com](http://www.nwplants.com), is  
no longer commercial. Our goal is to  
continue Wally's legacy of generating  
interest, even passion, in the  
magnificent native plants of the  
Pacific Northwest through  
information and illustration.



**Good luck! Good gardening!**

