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Northwest Native Plant Journal A Monthly Web Magazine

Bring on the Hummers! The Leaves are Coming!

Plant pros and cons: invasive aliens vs. natives

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Northwest Native Plant Journal A Monthly Web Magazine

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Maidenhair Tree (Ginko biloba) Photo by JoAnn Onstott Drawing by Marci Degman

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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.).

American Cranberry (VIburnum opulus) Photo by JoAnn Onstott

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On the Cover



Baby hummingbird on a Summer's Day Photo by JoAnn Onstott

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This baby hummingbird's curiosity got the better of it and JoAnn was able to snap its

In my mind's eye I see the little bird sitting on this branch watching with avid interest the tall lady ever so slowly gliding closer and closer to the tree, her entire upper body totally still with her elbows sticking out and the camera glued to her eye.

photo before it got away.

The baby hummer watches tentatively, on guard for sudden movements. The camera lady is poised, waiting for just the right angle of the baby bird's head and not daring to breathe for fear she'll break the spell.

She quietly depresses the shutter button once, then once more, her finger the only change in her statue-like stance.

Then bird and woman regard one another for a hair's breath longer until the bird suddenly twitches and flits away. A moment in eternity each may preserve and savor.



Native plant puzzle



Photo by JoAnn Onstott

Name this plant!

A clue to help you on your quest for the correct answer:

"I am so appealing with delightful sprays of flowers and glossy green leaves. Later I'll have stunning scarlet to bronze fall color. All the better to attract you with, my dear. For if you touch me you may have a lasting remembrance."



Answer to last Journal's puzzle:

Erigeron decumbens (Willamette Valley Fleabane), page 13

The clues? This plant was pronounced extinct in 1934 but in 1980 two small groups were found and carefully protected.

Fleabane is "doggone good" against fleas. The Berry Botanical Garden in Portland is the primary custodian of this plant in the CPC National Collection of Endangered Plants.

Congratulations to all who correctly answered!



Caring for your NW Native Plant Garden

1 – Perennials that have gone by are candidates for trimming down to the topmost leaf. No leaves left? Trim to 2-3 inches tall. This is a good time to put a marker down so you'll remember just where they are next winter.

2 – Final pruning of shrubs and trees for the fall. If you wait longer any new growth might get too cold with that first frost. Pruning now gives the new growth a chance to get enough maturity that the frost won't harm it.



3 – When perennial beds are done for the year, put on some good compost. Those rich nutrients will feed perennial roots and enrich the soil for next year.

4 – Gather seeds now as they ripen. Having had no luck with starting plants in pots, I like to follow nature's example with native plant seeds: put them down at the same time they naturally fall to the ground. Lightly cover then with a little sand or compost--not a lot, just enough so that birds won't think it's a feast.

5 – Speaking of birds, now's the time to provide food even if you don't do it during the spring and summer. Birds and other wildlife will remember where the food is and they'll come see you in winter. Don't forget to put some shiny things in your birdbath for sparkling attraction.

6 – Fall planting season will soon be here. Plan now for what you want to add or replace in your garden. Next to bare root planting, fall is the second best time to plant. Plant sales will soon be abundant and you can find very large plants at their lowest prices. How about a living hedge, a new cutting garden or a wildlife habitat? Think about how you'd like your landscape to look next year.

7 – Prepare your compost pile for the coming fodder that fall always brings. Harvest the compost that has been cooking all year (use to mulch your beds) and get ready to freshen your pile. Turn it if you wish. In fact, turning is the easiest way to get at the material that is ready to use since it will be at the bottom. Fork the top part into a new pile and find the gold at the bottom!

Sparky's Corner

A special message from our frisky contributor

Sometimes a two-legger will figure out something that just makes me proud to be a squirrel. A while back (not sure just when), a two-legger



named Dr. Lucia Jacobs, Ph.D., Princeton University, Associate Professor with University of California Berkeley, was studying brains and how it is we squirrels can always find where we buried our winter store of nuts with our little tiny brains. Here's what somebody wrote about this study:

High Squirrel Intelligence Levels Discovered

(Ahem, did you read that! High Intelligence!)

In California, animal behaviour specialists have been looking into the tiny mind of the squirrel and finding out how big it is when it comes to finding their stores of nuts.

Every autumn a squirrel will hide around 10,000 nuts. Their survival throughout the year will depend on their ability to find their hoard. This ability is dependent on their spatial memory and in that lies the key to their intelligence.

Dr. Lucy Jacobs has been studying the capacity of the squirrel's brain, "The squirrel has an extraordinary spatial memory. It lives in this huge three dimensional world, jumps from tree to tree and in addition it has this amazing foraging behaviour that it buries 10,000 nuts in the fall and hides each nut in a separate place and then has to find each nut again."

This amazing memory may be nothing to do with intelligence. (Hey!) The

key to recovering their hoard could be a simple ability to retrace their steps, like a tourist finding the way back to their hotel in an unfamiliar city. On the other hand, squirrels may be highly intelligent (That's better!) and find their way back to their food by building a three dimensional map of their neighbourhood in their minds. In this case, each nut would have a place on the map in relation to local landmarks, like trees and bushes, and the squirrel would be able to find the nut by any number of routes. This is what Dr Jacobs has been trying to find out.

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Sparky's Corner, continued

You can't give a squirrel an IQ test, so how do you test its intelligence? When Dr. Jacobs saw a BBC documentary featuring Grey Squirrels in a maze, it inspired her to devise a maze of her own to put her squirrels through their paces.

Dr. Jacobs and her team train a squirrel on a specific route, up one ladder, left and up the third ladder on the right. At the end of this route there is a nut. The nut is always in the same position and over several days the squirrel learns how to find it. The squirrel only has to remember this one route, so even if it isn't very clever its basic spatial memory will enable them to find the nut every time.

The next stage of the test is to try out the extent of the squirrel's intelligence. The nut stays in the same place, but Dr. Jacobs moves the maze, adding more ladders which give them alternative routes. If it has made a mental map of the area it will be able to find the nut by the position of the trees.

In tests, the squirrels have proved that they're not relying on retracing their steps. When the maze was changed they could estimate the position of the nut and go straight to it. Not bad for a creature with a brain the size of a brussel sprout!

In her research, Dr. Jacobs has also discovered that somehow squirrels' brains increase each Autumn. (Yeah!) All mammals use a part of the brain called the hippocampus to store memory. By examining cross sections of squirrel brains in the Autumn, when they hide their nuts, and again in the Spring, Dr. Jacobs discovered that during the Autumn the squirrel's hippocampus is 15% bigger than it is during the rest of the year. So it seems that they can increase the part of their brain that stores their memory when they need it most.

A human brain stops growing once we've reached the age of sixteen, but Dr. Jacobs believes that if we can understand what makes the squirrel's brain grow, one day we might be able to change the size of the human brain and boost our memories. Those Summer exams might not keep us out of the sunshine so much!

This is just amazing to me and I cannot wait for my brain to start getting bigger. After all, it is almost autumn. Gotta go--time to get serious about storing nuts!

Your friend,

Sparky

'Squirrels' by Albrecht Durer Notice they remembered where they stored their nuts!





The leaves are coming!



This Buckeye (Aesculus californica) is obviously proud of itself for being so healthy and happy it simply had to greet the spring with a royal TA-DA! But come fall, those leaves will be about 6 inches long, 1 1/2 inches wide and will all be on the ground. Photo by JoAnn Onstott

Facing the annual leaf dilemma

Happy Compromise

by Pamela Boyle

Raking is not everyone's favorite job. If your property is large and has many mature trees, it can be endless.

Rather than meticulously rake up every last leaf, consider a more relaxed approach. There are parts of the garden that will actually benefit from having a leafy layer left right where it lands.

The leaves left under trees and shrubs and where sturdy ground cover is growing, will break down over the winter. Trees with a large mulched area under them stay healthier and grow more guickly. The mulch helps retain moisture and feeds the tree's roots.

A light covering of leaves will insulate your perennial beds from the cold. Then again, too many leaves can not only cause crown rot on your precious plants, but can also invite insects and fungi. ⇔More⇔



Aesculus californica

The leaves are coming!, continued



For a healthy grass, however, it's important to remove the leaves. *(Editor's note: grass? Just another time and money waster!)* The simplest method is to go over them with a lawnmower (with a collection bag attached) before you even pick up the rake. There will be fewer leaves to rake and those that escape will nourish your lawn.

Composted leaves are considered "gardener's gold", so heap them in a simple chicken wire frame set up in a hidden corner of the yard. By spring, the leaves will have broken down enough to be added to your garden soil.

For more information on the health and environmental benefits of gardening, see Go for Green's website at www.goforgreen.ca.

This article is from Canada's Go For Green website.



Oregon Ash (Fraxinus latifolia) leaflets are 2-4 inches long when green and about half that when dry. It is a member of the olive family and the only ash native to the northwest.

Paper Birch (Betula papyrifera) leaves are also 2-4 inches long when green, half that when dry but are single instead of on a stem. Both trees have lovely golden fall color and their leaves, once fallen, are small enough to leave where the lie.



The leaves are coming!, continued

Editor's notes: When choosing a tree, whether or not you intend to rake the leaves is a factor to consider. In general, the larger the leaf, the better the shade qualities. Also, larger-leaved trees tend to be broader and more round in shape. This is not always true but it is more often than not.

In the illustration below, the pyramidal and conical are natural shapes of conifers. Paper Birch and Oregon Ash are somewhere in between columnar and spreading, depending on the location and the individual tree. Maples and Oaks tend more towards the rounded and even broad shapes.



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Imposters and Imposers

Non-native plant species currently reported found on National Forest lands and Grasslands in the Pacific Northwest

The U.S. Forest Service keeps this list of non-native species found on national lands, sort of an inventory of what's going on. They code this list as to the official status of each plant. Noted are plants already designated as noxious in Oregon and/or Washington, plants not

KEY:

Non-native species designated as noxious in Oregon and/or	
Non-native species not designated as 'noxious' in OR or WA - known to be invasive in other	
Non-native species not designated as 'noxious' in OR or WA - invasive status unknown	

Genus Species/Variety Commo	on Name			
Acaena novae-zelandica	biddy-biddy	biddy-biddy		
Acroptilon repens	Russian knapweed	Russian knapweed		
Alopecurus myosuroides	slender meadow foxtail			
Ammophila arenaria	European beachgrass	BI		
Anchusa officinalis	common bugloss	(Ac		
Anchusa arvensis	small bugloss	zelan		
Arctium minus	common burdock	Leal		
Artemisia absinthium	absinth wormwood	orig		
Brachypodium sylvaticum	slender false brome	pla		
Brassica rapa var. rapa	field mustard			
Bromus tectorum	cheat grass or downy brome			
Bromus rigidus	ripgut brome	tor r		
Buddleja davidii	orange eye butterflybush	weth		
Cardaria draba	hoary cress	it's		
Cardaria pubescens	hairy whitetop	howe		
Carduus acanthoides	plumeless thistle	bala		
Carduus pycnocephalus	Italian thistle	cute		
Carduus nutans	musk thistle	an		
Centaurea biebersteinii	spotted knapweed			
Centaurea diffusa	diffuse knapweed			

designated in OR or WA but known to be invasive in other states and plants not designated as noxious and invasive status is unknown. This last is the 'watch' list.

Most all of these same plants are easily located on private lands as well--that's often where they escaped from in the first place!



I first noticed this tree being strangled by ivy 2 years ago. At that time there was a swathe of green around the midline but the tree was still lush and beautiful, healthy.

I took it's picture today to show the damage that can take place in a short time if nobody intervenes.

In the closeup you can just make out the ivy preparing to go to seed. I was unable to get a shot of the trunk which is completely covered in ivy. What was once a magnificent specimen is now simply a host for this all-too-common invader.

Genus Species/Variety	Common Name		
Centaurea debeauxii ssp. Thuillieri	meadow knapweed		
Centaurea melitensis	Maltese starthistle		
Centaurea solstitialis	yellow starthistle		
Centaurea triumfetti	squarrose knapweed		
Centaurea cyanus	garden cornflower		
Centaurea diluta	North African knapweed		
Centaurea macrocephala	bighead knapweed		
Cerastium dichotomum	forked chickweed		
Chondrilla juncea	rush skeletonweed		
Cirsium arvense	canada thistle		
Cirsium ochrocentrum	yellow spine thistle		
Cirsium vulgare	bull thistle		
Conium maculatum	poision hemlock		
Convolvulus arvensis	field bindweed		
Cortaderia species	pampas grass		
Crupina vulgaris	common crupina		
Cynoglossum officinale	houndstongue		
Cytisus scoparius	Scotch broom		
Cytisus striatus	Portugese broom		
Digitalis purpurea	purple foxglove		

I think this is a yellow cedar of some sort. Sadly, it won't be alive much longer unless it finds a hero to save it.

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There is one point about non-native, invasive plants that must be made: It is not the plants themselves that are at fault. Had they been left where they came from they would be the delights that mother nature intended. It's when we take those plants to another place where they are not found naturally and where they have no counterpart to keep them in balance that the scales tip and we find ourselves in a mess.

Even my least favorites of all plants, the Himalayan blackberry and English ivy, are not bad plants per se. They have been mistreated and misused, kidnapped and are now holding us hostage here in the Pacific Northwest. We must fight to survive! Each time I think I've wiped out

the last of the blackberries I find another one growing. The birds and other wildlife just love these nasty things and drop their seeds indiscriminately. They think they're having a snack, giving no thought at all to my garden.

Genus Species/Variety	Common Name
Dipsacus fullonum	common teasel
Dipsacus laciniatus	cutleaf teasel
Echium vulgare	blueweed or vipers bugloss
Elymus repens	quack grass
Euphorbia esula	leafy spurge
Foeniculum vulgare	fennel
Genista monspessulana	French broom
Geranium robertianum	Robert geranium or stinky bob
Gypsophila paniculata	baby's breath
Hedera helix	English ivy
Heracleum mantegazzianum	giant hogweed
Hieracium aurantiacum	orange hawkweed
Hieracium caespitosum	yellow or meadow hawkweed
Hyoscyamus niger	black henbane
Hypericum perforatum	St. Johnswort
Hypochaeris radicata	spotted catsear
Isatis tinctoria	dyers woad
Kochia scoparia	kochia or Mexican fireweed
Lactuca serriola	prickly lettuce
Lathyrus latifolius	perennial pea



This is Vipers Bugloss. Since it has escaped the gardens where it was planted into the countryside it has successfully eradicated many Northwest native wildflowers. It is beautiful but it needs to go back where it came from and leave the equally beautiful wildflowers that grow here naturally alone.

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Playing the blame game is not productive when dealing with plants competing with natives and thrusting themselves into our gardens. It is not the fault of the plants that they are now on foreign soil. It is not the fault of the wildlife that they eat what is provided to them.

Expecting the plants to take themselves home is ludicrous. Trying to interest a bird in only native foods is as likely to be successful as teaching a pig to fly.

That leaves us, the gardeners and stewards of the earth, to roll up our sleeves and get busy. I found that children between the ages of 8 and 12 are particularly good at removing ivy. Give

Genus Species/Variety	Common Name
Lepidium latifolium	perennial pepperweed
Leucanthemum vulgare	oxeye daisy
Ligustrum vulgare	European privet
Linaria dalmatica	dalmation toadflax
Linaria vulgaris	yellow toadflax
Lythrum salicaria	purple loosestrife
Marrubium vulgare	horehound
Melilotus officinalis	yellow sweetclover
Myriophyllum spicatum	Eurasian watermilfoil
Onopordum acanthium	Scotch thistle
Phalaris arundinacea	reed canary grass
Picris hieracioides	hawkweed oxtongue
Polygonum cuspidatum	Japanese knotweed
Polygonum sachalinense	giant knotweed
Potentilla recta	sulphur cinquefoil
Rubus discolor	Himalayan blackberry
Rubus laciniatus	cutleaved blackberry
Salsola kali	Russian thistle
Salsola tragus	prickly russian thistle
Salvia aethiopis	Mediterranean sage



Horehound (Marrubium vulgare) was introduced as an herbal for it's distinct taste. Victorian folks found the flavor to be quite a treat and used it in hard candy. But since it has no natural balance here in the Americas, it runs amock now that it has escaped the garden.

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This lovely wildflower is called Bouncing Betty or Soapwort (Saponaria officinalis). It was brought to America as a fine perennial with medicinal properties. However, as all to often occurs, it escaped and is now making quite a nuisance of itself, spreading by deep underground rhizomes. It is "mildly poisonous"--it can cause intestinal upset but has not been reported as deadly. Noxious, but not deadly.

them some gloves and big buckets and the promise of a reward for a job well done and you'll have no ivy in no time.

I tried the same approach with blackberries but my description of the horrible strength of the 'stickerbushes' was too effective--the young man who took on the job not only cut them down, he chopped them into pieces about 3 inches long. He spent so much time 'killing' them he had no energy left to cut the rest of them down. I gave him a reward for giving those nasty bushes what-for, though, and they were easier to rake up when they were cut down to small size.

We must be always on the lookout for beguiling aliens as well. Nurseries sell these thugs to the unwary, touting their best qualities (hardy, drought-tolerant, spreads easily) but they don't disclose the fact that they are not native to the northwest and are in fact listed as noxious invasives. Probably they don't even know. It is up to each of us to be aware and beware. Know what plants are alien and will threaten the native plants our ancestors cherished.

Genus Species/Variety	Common Name
Saponaria officinalis	bouncing betty
Secale cereal	cereal rye
Senecio jacobaea	tansy ragwort
Solanum dulcamara	climbing nightshade
Solanum elaegnifolium	silverleaf nightshade
Sonchus arvensis	perennial sowthistle
Taeniatherum caput-medusae	medusahead rye
Tanacetum vulgare	common tansy
Tanacetum parthenium	feverfew
Tribulus terrestris	puncturevine
Ulex europaeus	common gorse
Utric dioica ssp. Dioica	stinging nettle
Ventenata dubia	North Africa grass
Verbascum thapsus	common mullein
Vinca major	bigleaf periwinkle

Two of the worst offenders for crowding out native meadow wildflowers are Queen Anne's Lace (Daucus carota) and Chicory (Chicorium intybus). Both these plants have extremely deep roots so they are difficult to remove once they get their toes in the dirt.

When the road crews perform their annual herbicide sprayings along the roadsides, the plants with more shallow roots are destroyed and the way is clear for these two invasives to shine. And shine they do. Right now there are fields simply covered with the white lacy flowers of Queen Anne's Lace. Waste places along roads are blue with Chicory flowers.

Nothing at all in our currently available resources will prevent their reproducing on a big scale, they have no natural enemies here in the Northwest because they are not native to this area. As is the case with other invasive aliens, there is no balance of nature present for these two. Even if the road crews were to come back for an additional herbicide spray, it won't touch them. Mowing just encourages them to divide and conquer. All the little native wildflowers are displaced by these invaders. And that's the real problem. If Chicory and Queen Anne's Lace were polite and shared space with true native plants, all would be well. But because nature's grand plan is disrupted by plants growing where nature did not intend, our fields that were once a kaliedoscope of color are now just white and blue. Unless we, who made this mess, get busy and clean it up it is not likely to get any better.

Chicory (Chicorium intybus) is used as flavoring for coffee or as a substitute beverage, especially in the southern United States.

Queen Anne's Lace (Daucus carota) is known as 'wild carrot' and it is said to be the origin of the cultivated carrots enjoyed as a vegetable.



Native Choices

Virginia's Department of Environmental Quality gives the following reasons for landscaping with native plants:

Economic Benefits of Protecting Native Trees and Shrubs

- Saves money normally used on fertilizers and pesticide. Native plants are best adapted and don't require them.
- Saves maintenance time. Less lawn = less mowing.
- Reduces the risk of flooding.
- Increases protection from wind and storm damage.
- Increases energy efficiency by moderating the climate around buildings.





Douglas Maple (Acer glabrum) Superb shade tree just beginning to leaf out in spring. Photo by JoAnn Onstott

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Water Quality Benefits of Protecting Native Trees and Shrubs



Ceanothus velutinus (Snowbrush) Fragrant evergreen shrub--good for fixing nitrogen in the soil. Photo by JoAnn Onstott

Prevents erosion and adds more stability to shorelines. Root systems hold shoreline in place.

Prevents sedimentation of creeks and marshes. Root systems trap sediments in run-off from heavy rains.

Protects groundwater quality and helps maintain high water levels. Root systems take up nitrogen and phosphorous.

Saves water (up to one-third) used to maintain landscapes.

Native willows grow well at the edge of ponds and streams, holding shorelines in place and sheltering polliwogs and baby fish.



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Aesthetic Benefits of Protecting Trees and Shrubs



fincreases privacy.

Creates a noise buffer.

Enhances the visual and scenic character of your neighborhood, locality and the Commonwealth!

A fully mature Western Red Cedar (Thuja plicata) growing natu-

rally at Reed College in Portland, Oregon. This tree is about 180 feet tall and, even though the grass beneath has turned brown from summer heat, the trees are still deep green and luscious.







Best shrub for privacy, noise barrier, living fence: Thuja plicata (Giant Arborvitae or Western Red Cedar). Grows rapidly and can be sheared to create a thick border to your yard. Photo above by JoAnn Onstott

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Use native plants for landscaping.

On the Delmarva Peninsula (editor's note: this is also good tor Oregon's coastline and along the Willamette River) plant natives with an especially high value to migratory birds. Native plants typically provide the best habitat and food for migrant birds and other wildlife. These plants are also best adapted to the local climate and easier to maintain.

Connect habitats on your property with those on surrounding lands.

How habitats are connected has an influence on how animals move and how many may be supported within a local area. You can maximize your land's usefulness for birds by creating vegetated "corridors" between existing vegetation patches.

Consider the distribution of habitats on surrounding lands when planning significant changes on your property.

Plan your lot so that "set asides" or iandscape features adjoin those of your neighbor. This provides more cover for songbirds so that they can escape from predators.



Bog Birch or Scrub Birch (Betula glandulosa) is similar to Paper Birch but usually has multiple stems and grows to 6–8 feet. Hardy to zone 2, this small tree is favored by birds for nesting and shelter from predators. Photo by JoAnn Onstott

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If you Own Forested or Open Lands...

Forested Lands

- *Frior to construction, conserve native plants.*
- Plan your homesite to protect at least 60% of the existing vegetation on your property.
- When removing trees and shrubs from the construction area transplant the most valuable native plants to undisturbed areas of the same habitat type to enhance the value of "set aside" areas for wildlife such as migrating birds.

Leave dead trees standing, if safety considerations permit. Dead trees are a component of healthy forest habitats.

- *More Design viewing areas and access paths in ways that preserve understory vegetation.*
- Construct brush piles to provide protective cover for migratory efficiency by songbirds.
- *Replace removed trees and shrubs with native plants valuable to migratory birds.*
- Clump plantings to create tree/shrub islands. Islands of dense vegetation will provide more cover than evenly spaced, isolated trees and shrubs.



Sword Fern (Polystichum munitum). This magnificent specimen is growing wild at the edge of a clearing. Around it are snowberries and young trees. The owner of this property elected to allow this area to remain natural, a very popular decision with local wildlife! Photo by Jennifer Rehm





The Wild Garden: Hansen's Northwest Native Plant Database

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Bring on the Hummers!



A few NW native plants that hummingbirds adore:

Buckeye Columbine Currant Fringecup Gooseberry Honeysuckle Huckleberry Monkeyflower Penstemon Salal Salmonberry Snowberry

Twinberry

Clockwise starting at upper right: Red Columbine (Aquilegia formosa), Shrubby Penstemon (Penstemon fruticosus), Twinflower (Linnaea borealis), Twinberry (Lonicera involucrata), Orange Honeysuckle (Lonicera ciliosa), Red Huckleberry (Vaccinium parvifolium). Photos by JoAnn Onstott, drawings by Heidi D. Hansen









Wicked and Evil Plants

"LEAVES OF THREE, LET THEM BE" (Old saying)

Even though I truly believe there are no bad plants, some are so close to that it may shake that belief. I'm speaking of those plants that just seem to go out of their way to make people and pets miserable. I try to see some good in everything but I am having a really hard time finding that little bit of good in Poison Oak (Toxicodendron diversilobum, formerly Rhus diversiloba). Here's the plant description from the



Poison Oak flowers: Did you recognize this plant? It is our mystery plant this issue. Learn to know it well so you can avoid it! University of California Agriculture and Natural Resources website, UC IPM Online, the statewide integrated pest management program at http://www.ipm.ucdavis.edu/ PMG/PESTNOTES/pn7431.html

Poison oak or western poison oak, Toxicodendron diversilobum, is native to western North America, with a distribution extending from British Columbia south to the Baja California peninsula. In Washington and Oregon, poison oak is found mainly in the western regions of the states. In California it is widespread and grows in a wide range of habitats from sea level to the 5000-foot elevation, including open woodland, grassy hillsides, coniferous forests, and open chaparral.

IDENTIFICATION

Poison oak is a deciduous (loses leaves in winter), woody plant that can have a shrub or vine form. In open areas under full sunlight, poison oak forms a dense leafy shrub usually 1 to 6 feet in height. In shaded areas, such as in coastal redwoods and oak woodlands, it becomes a much taller climbing vine, supporting itself on other vegetation or upright objects by means of aerial roots.

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Wicked and Evil Plants, continued

Leaves normally consist of three leaflets with the stalk of the central leaflet being longer than those of the other two; however, occasionally leaves are composed of five, seven, or nine leaflets. Leaves of true oaks, which are superficially similar, grow singly, not in groups. Poison oak leaves are alternate on the stem. Each leaflet is 1 to 4 inches long and smooth with toothed or somewhat lobed edges. The diversity in leaf size and shape accounts for the Latin term diversilobum in the species name. The surface of the leaves can be glossy or dull, sometimes even somewhat hairy, especially on the lower surface.

In spring, poison oak produces small, white-green flowers at the point where leaves attach to the stem.

Whitish-green, round fruit form in late summer. In early spring the young leaves are green or sometimes light red.

In late spring and summer the foliage is glossy green, and later turns attractive shades of orange and red.



Poison Oak new growth

Poison Oak and I have had an ongoing feud since I was 5 years old. I first met this plant when we were having a big family picnic out north of town at little lakeside picnic area. While the womenfolk were setting up the tables and laying out the food, the guys were playing horseshoes, and my dad went down to the bank to get in a little fishing. When supper was ready I was asked to go get him. I scampered down the trail and told him to come on up and get something to eat. Climbing back up was harder than going down the trail so I grabbed onto a nearby bush to help hoist myself up. My Aunt Marie was watching me and when she saw me latch onto that bush she hollered "don't touch that!" It

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Wicked and Evil Plants, continued



Poison Oak with flowers. Notice some leaves are slightly ruffled, some are not. All the photos in this article were taken on the same day in the same little patch of plants. Photos by JoAnn Onstott

was too late then, I'd already let go and was up beside her before she got the words out of her mouth. We went back to the tables and she asked my mother if I was allergic to Poison Oak. Mom said she didn't know and Aunt Marie said we were about to find out. They washed my hands real good and we had a fantastic picnic. Fried chicken and potato salad and just about any kind of old southern picnic food you could think of. We had cake and cookies and banana cream pudding with vanilla wafers in it. Yum. When we got home that night after a full day of activities I had my usual scrub in the tub and went to sleep.

The next morning I was literally covered with a furious red rash all over my body. Nobody can find each of the body's orifices as well as a little kid. I had the rash in my ears, nose, eyes, even on the bottoms of my feet and between my toes. Mom began a series of remedies (remember this was a long time ago and there were few dermatologists around).

I remember pink lotions and white salves, days and days of increased misery--I had big blisters on top of the rash and open oozing places where the blisters had broken--it was incredible and it itched so much that it hurt. Mom even took me down to my dad's shop where he had tanks of compressed air and they blew that on me trying to dry out the rash and give me some relief. It finally went away after weeks of horror.

We learned to recognize Poison Oak in each of it's forms but I still got into it every year of my life until I was grown. It was so bad one year they hospitalized me because it got into my blood stream and infected me from the inside out. I remember when I was in the 8th grade I had mumps and rested on the couch for several days not leaving the house. Guess what--I got poison oak. We figured out I got it from the cat. He went outside and rubbed against it and then came inside to give me some good purrs and pats. Another time I got it when we drove past a farmer burning off brush which had a high population of Poison Oak. The smoke infected me because it carried the Poison Oak oils.

Wicked and Evil Plants, continued

I hope I've described the terrors of this plant enough for you to memorize it's identification for self defense. Some people can roll around in it without affect. Next time they get in it they may have a severe reaction. Others, like me, find it highly dangerous every time. My tip: stay away from it. Even if you think it doesn't bother you, you can carry it to someone else. I got it from hugging my dad when he came home one day after being out in the woods. The oils were on his clothes.

If you find this nasty thing on your property, you can try completely covering yourself and pulling it up but you may give yourself a bad case of it. I did that. I wore boots with pant legs tucked in, long sleeves tucked into gloves, shirt fastened up over a turtleneck, scarf on my head, goggles. I got it. It was the pollen. Consider getting an expert to eradicate it.

Other plants cause just as much reaction as Poison Oak in those who are succeptible. The following list of native and common non-native plants are known to give skin irritation problems and should be avoided. The list is by no means inclusive:

Common Name	Botanical Name			Negetier //
Boxwood - leaves	Buxus			
Buttercup	Ranunculus		SP	
Castor Bean	Ricinis communis			
Century plant - sap	Agave	Poison Oak with		and the set
Daffodil	Narcissus bulb	Acwers		a start
Fig tree Sap	Ficus			
Foxglove	Digitalis	The little bee is	No. Mart	
Maidenhair tree	Ginkgo - seeds	assisting		
Milkweed	Asclepias	polination.	STATIS	
Oleander – leaves	Nerium	O joy! More		
Poison hemlock	Conium maculatum	Poison Oak!		
Poison ivy	Rhus radicans			
Poison oak	Rhus diversiloba			12
Poison suckleya	Suckleya suckleyana			
Poison sumac	Rhus vernix or toxicodendron			
Trumpet creeper - leaves	Campsis			AL AL

Not horrified enough? See photos of actual Poison Oak rashes here: <u>http://www.poison-sumac.org/</u> WARNING--not for the squeamish or faint of heart! If you are infected with poison oak, ivy or sumac, see first aid information from Medline Plus on the next page.

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Wicked and Evil Plants, continued Medline **Plus**

www.nlm.nih.gov/medlineplus/

A service of the U.S. NATIONAL LIBRARY OF MEDICINE and the NATIONAL INSTITUTES OF HEALTH

POISON OAK, IVY, SUMAC: FIRST AID

- Reproduct Because A product with seap and warm water. Because the resin enters skin quickly, try to wash it off within 30 minutes. A product is the resin enters of the skin duickly, try to wash it off within 30 minutes. A product is the resin enters of the skin duickly, try to wash it off within 30 minutes. A product is the resin enters of the skin duickly, try to wash it off within 30 minutes. called Tecnu, available in camping stores and some pharmacies, is very effective at removing the oils.
- >> Scrub under the fingernails with a brush to prevent the resin from spreading to other parts of the body.
- linger on them. Wash clothing and shoes with soap and hot water. Resin can linger on them.
- Promptly bathe animals to remove the oils from their fur.

Trusted Health Information for You

- -> Body heat and sweating can aggravate the itching. Stay cool and apply cool compresses to your skin.
- -> Calamine lotion and hydrocortisone cream can be applied to the skin to reduce itching and blistering. Bathing in lukewarm water with an oatmeal bath product, available in drugstores, may soothe itchy skin. Aluminum acetate (Domeboro solution) soaks can also help to dry the rash and reduce itching.
- If creams, lotions, or bathing do not stop the itching, antihistamines may be helpful.
 - In severe cases, especially rash around the face or genitals, your physician may prescribe oral or injected steroids.

Do Not

- > DO NOT touch skin or clothing that still have the resins.
- DO NOT burn poison ivy, oak, or sumac to get rid of it. The resins can be spread via smoke, and can cause severe reactions in people who are far downwind.

Call immediately for emergency medical assistance if

Call 911 or go to an emergency room if:

- Someone is suffering a severe allergic reaction, such as swelling or difficulty breathing, or has had a severe reaction in the past.
- > Someone has been exposed to the smoke of a burning plant.

Call your provider if:



- Itching is severe and cannot be controlled.
- \rightarrow The rash affects your face, lips, eyes, or genitals.
- > The rash shows signs of infection, such as pus, yellow fluid leaking from blisters, odor, or increased tenderness.

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Invasive Plant InformationResources

Words to learn by (and photos, too!)

Invasive alien: Foxglove (Digitalis purpurea) in the background

Education is our biggest ally in eradicating non-native invasives. The list on the previous pages shows just those plants reported on federal lands and it is a good start. But there is much more to learn. Here are some of the resources we found on the web.

The National Park Service's website has a section called Weeds Gone Wild: Alien Plant Invaders of Natural Areas

which is the Plant Conservation Alliance's Alien Plant Working Group's site. Here you will find publications to download, fact sheets, tips for what you can do and much more.

They also have a downloadable invasive plant list which includes all the states. This was quite an eye-opener for me as I found plants that are native to the Pacific Northwest listed as alien in other areas of the country. For instance, the Incense Cedar (Calocedrus decurrens) is one of my favorite trees. It is not only beautiful, it smells wonderful! But it is invasive in Hawaii.

The WeedUS file from this website is super because it shows botanical name, common name, where the plant is native and where it is invasive. Read and learn! And consider what this means-classifying a plant as alien and invasive does not mean it comes from another continent or even another country right here in North America. A plant from the very next state might be alien and invasive! OOOOh--take care when messing with Mother Nature!



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One of the many books from which you can learn about invasive aliens to our corner of the world is called *Invasive Species in the Pacific*

<u>Northwest</u> by P. Dee Boersma (Editor), S.H. Reichard (Editor) and A.N. Van Buren (Editor), published by University of Washington Press, October 31, 2006.

Amazon's editorial review:

"Invasive Species in the Pacific Northwest examines invasive species of fish, plants, invertebrates, mammals, and birds, such as the American bullfrog, blackberries, domestic cats and pigs, European fruit flies, Japanese eelgrass, Mediterranean mussels, rats, and terrestrial mollusks. For each of 108 species, the book includes:

- Species description and current range
- Impacts on communities and native species
- Control methods and management
- Life histories and species overview
- History of invasiveness

Other features of the book include:

- 20 suggestions to help reduce the spread of invasive species
- Habitat preferences of Pacific Northwest invasive species
- A questionnaire to evaluate ecological impact and invasive potential"

About the Authors

P. Dee Boersma holds the Wadsworth Endowed Chair in Conservation Science in the Department of Biology, University of Washington. Sarah Reichard is an associate professor affiliated with the Center for Urban Horticulture, University of Washington. Amy Van Buren is a Ph.D. candidate in biology at the University of Washington.



IN THE PACIFIC NORTHWEST



Edited by P. D. BOERSMA, S. H. REICHARD, & A. N. VAN BUREN



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Invasive alien: Climbing Nightshade (Solanum dulcamara) in the background

Invasive alien: Tribulus terrestris (Puncture Vine) in background

New England Wild Flower Society

The New England Wildflower Society's website has a very positive take on invasive plant education. They not only list aliens in the New England region, they show suggested native plant alternatives. What a lovely thought!

Their website has a more playful attitude than some and it is refreshingly fun. The headline article on their home page:

ART GOES WILD: Innovation with Native Plants...

The wattle fence surrounding this totally green little garden is the stage on which the dark blue birdbath and brighter blue small water garden appear. Charming!

See their printable list titled Alternative to invasive or potentially invasive exotic species, compiled and with an introduction by William Cullina, NEWFS Nursery Manager.

www.newfs.org/conserve/docs/invalt2.pdf

Promoting conservation of North American native plants through education, research, horticulture, habitat preservation, and advocacy.



Invasive Species in the Pacific Northwest, Part 1

Produced by: University of Washington June 2, 2004 Invasive alien: Vlex europaeus (Common Gorse) in background

Description: In part one of a two-part series, experts in urban conservation biology, forest entomology and forest pathology discuss how invasive species are influencing native plant species unique to forests in the Pacific Northwest. Invasive Species in Pacific Northwest Ecosystems is the ninth topic in the Denman Forestry Issues Series.

Speaker(s):

Dr. B. Bruce Bare, dean and Rachel Woods professor, College of Forest Resources, University of Washington Robert L. Edmonds, associate dean and professor of Ecosystem Sciences, College of Forest Resources, University of Washington

Steve West, professor of wildlife science and associate dean, University of Washington College of Forest Resources Bob Gara, professor of forest entomology, University of Washington College of Forest Resources Sarah Reichard, assistant professor of urban conservation biology, University of Washington College of Forest Resources

www.researchchanne	el.org/prog/displayevent.aspx?rID=2795&fID=572 If you are not familiar wi	th the Research Channel, you
	Rice University	are in for a treat. This website has a large library of
	University of Virginia Pacific Northwest Giga	webcasts, videos, etc. that you can order or watch on demand with your cable or
RESEARCH® Think Forward. Think ResearchChannel.		sattelite company or watch right on your pc. It is edu-
CHANNEL	Programming News & Information Technology Initiatives Participation	cation at your fingertips. ⇔More⇒

Northwest Invasive Plant Council (Dec 2005)

Northwest Invasive Plant Council Taking a New Approach to the War on Weeds in Northwest BC Honey Giroday, NWIPC Program Manager

Farmers in British Columbia have come up with a unique way to deal with invasive plants. They have a good education campaign so people know what to look for. They established one single point of contact where you can report sighting the target list of invasives and this contact agency then sends out plant control contractors to remove the plants. It's a combination of education, cooperation and decisive action and it is working.

The NWIPC has completed the first year of a three year pilot project begun in April 2005. The NWIPC was initially established in the mid-1990's to co-ordinate the invasive plant control activities of its member organizations including government, industry, environmental and First Nations agencies.



The primary goal of the pilot project is to have a single agency responsible for the coordination and delivery of invasive plant control and public education to enhance the effectiveness of invasive plant management, reduce the cost for numerous agencies.

The NWIPC pilot project was found to be highly successful in its first year of operation and Honey Giroday states that "operationally it has provided more effect invasive plant control, better service for the public and, with minor adjustments, will prove to be even more effect in the 2006 & 2007 field season".

The NWIPC's primary goal is to prevent troublesome weeds found in surrounding areas from establishing in northwest BC.

A community based and public education approach to invasive plant control has to be used in order to get invasive plant sites reported. They use a toll-free number from May to October for information exchange and public reporting of invasive plant sites. Invasive plant control contractors then go out and deal with the problem.

Invasive alien: Polygonum cuspidatum (Japanese knotweed) in background



Last year the University of Washington Botanic Gardens held this Invasive Plants Conference in Seattle.

Obviously it has come and gone but the presentations seen are still available from your pc. You can also read the presentation notes.

The Botanic Gardens are a wonderful place to visit and you can't possibly leave there without learning something important about native plants, non-natives, invasives and those classed as noxious.

It is a fantastic resource and well worth the trip to see.

www.depts.washington.edu/urbhort/html/invasives/homepage.htm

Wetland Invasive Species

This portion of the NDWT website focuses on wetland invasive flora and fauna. Here's an excerpt:

"Humans cause most invasive species introductions. Invasives are carried in or on animals, vehicles, ships, commercial goods, produce and even clothing. Along the Clearwater, Snake and Columbia Rivers, there have been several introduced invasive species in the past few years, with the threat of further infestation by new species in the near future."

Some preventive techniques involving boats and other watercraft:

Before moving your boat between bodies of water:

- Inspect your boat, trailer, and boating equipment (anchors, centerboards, rollers, axles) and remove any plants and animals that are visible before leaving the immediate vicinity of any water body.
- Drain water from the motor, livewell, bilge and transom wells on dry land before leaving the dock area.
- Dispose of bait in proper disposal facilities. Never release live bait into a water body or release aquatic animals from one water body into another.
- Wash and dry your boat, tackle, downriggers, trailer and other boating equipment to kill harmful species that were not visible at the boat launch. This can be done on your way home or once you have returned home. Be aware that some aquatic invasive species can survive more than two weeks out of the water.
- Learn what these organisms look like. If you suspect a new infestation of an invasive plant or animal, immediately report it to your natural resource agency.



Eurasian Water Milfoil (Myriophyllum spicatum)

Purple Loosestrife (Lythrum salicaria)



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Invasive alien: Senecio jacobaea (Tansy Ragwort) in background



The Wild Garden: Hansen's Northwest Native Plant Database

Leave no weeds

How recreationists can reduce the spread of alien weeds in the backcountry

By Roger J. Wendell

Submitted by Angela Medbery

Source: Andy Kulla, USFS Nola National Forest, MT

Alien plants in Colorado can cause problems by crowding out native plants and taking over wildlife habitat. While they may provide ersoion control in some areas and food sources for wildlife it behooves us to do the best we can to prevent alien species from taking over our wildlands. While less than 10% of our public lands are infested with weeds, we do not wish this number to increase and must do what we can to prevent the spreed of weeds.

BE AWARE AND PREPARE:

- Learn to identify weeds and exotic species
- · Rid camping gear, boots and clothing of mud and seed before each trip and campsite
- Regularly check your clothes and equipment for weed seeds
- Use and pack only certified weed seed free feeds
- Feed stock certified weed free feed for 3 to 4 days before a pack trip
- Brush animals before and after backcountry trips to remove weed seed

CAMP AND TRAVEL IN WEED FREE AREAS:

- · Wash your rig, bikes, and recreational vehicles BEFORE and AFTER each outing
- Stay on established roads and trails
- Camp only at established or designated campsites
- Avoid camping in or hiking through weed infested areas
- Avoid soil disturbing activities and practices

PULL AND PACK OUT WEEDS WHENEVER POSSIBLE:

- · Learn to identify weeds in the areas you like to recreate
- · Bag or burn any weed seed you find
- Pull small infestations of non-rhizomatous* weeds (always wear gloves)
- · Be careful not to spread weed seed if you pack it out
- Don't pull any plant you can't identify

REPORT IT:

Report only new and small infestations of weeds that are a problem in your area

Invasive alien: Geranium robertianum (Stinky Bob) in background



www.rmc.sierraclub.org/outings/weeds.shtml

We know you care about America





This & That

A few notes from Jennifer

Summer continues, life goes on.

Will we have an Indian summer this year? Maybe. And what does that mean anyway? According to Wikipedia (www.wikipedia.com):

In the Pacific Northwest, where sunshine and warmth rarely coincide after November 1, the term Indian summer usually refers to the "final" warm spell of October, which is followed by several months of frequent rain and coolness.

Where did the term 'Indian summer" come from? As a member of the Cherokee Nation, I wanted to know so I went online (where else?) and did some research. I found an answer I can live with in an article by Richard B. Williams (Oglala Lakota) on a website at www.nativevillage.org/Messages%20from%20the%20People/ celebrating_an_indian_summer.htm. Mr. Williams, who by the way is president and CEO of the American Indian College Fund, writes of a book titled "Indian Givers: How the Indians of the Americas Transformed the World" written by Jack Weatherford. In this book, there I found the explanation of the term "Indian summer" that I like. Mr. Williams explains:

Early settlers who coined the term would see Indian farmers celebrating the blessing of being able to add a second and sometimes third harvest to their winter store following the first frost. The author described how the Indian farmers would give thanks to the creator for the warm days. As we celebrate our own recent warm weather, we must also recognize the contributions that these Indian farmers made to our overall well-being. American Indians were not only the first landowners in North America - they were also accomplished farmers whose agricultural aptitude would eventually transform the world.

Not all Original People (OPs for short) have historically been farmers but the earth and it's flora has always been held in esteem as medicine, as food, as shelter, as basic elements of life. Dyes are extracted from native plants like White Alder (Alnus rhombifolia), Kinnikinnik (Arctostaphylos uva-ursi), Ceanothus, Oregon Grape (Mahonia), and Cascara (Rhamnus purshiana).



Western Redbud (Cercus occidentalis) Photo by Jennifer Rehm →More→

This & That, continued

OP culture is big on thrift and very down on waste. As many parts of a plant as possible are put to use. For instance, Smooth Sumac (Rhus glabra) seeds can be burned like candles giving good light and repel bugs. Berries make black dye. Leaves gathered after they turn red make yellow dye. Leaves and bark are good tanning agent. Split bark is fine weaving material. The berries are also delicious tea which can be used fresh or dried. The leaves and fruit can be bruised and applied as poultice for skin diseases.

Wild strawberries are delicious but they are also used to soothe sunburn and whiten teeth. The roots are said to be good for diarrhea while the fruit and leaves are laxative as well as diuretic.

Western Redbud (Cercus occidentalis) is a superb bloomer with fiery hot pink flowers before the leaves appear. The wood when mature takes a very fine polish and the bark of young shoots is strong weaving material. The bark of young shoots has also been used for diarrhea or dysentery. The buds are good in salads and can be made into pickles.

I hope we have Indian summer this year but for now I'll enjoy the regular summer: it is quite fine enough.

"The Great Spirit is in all things, he is in the air we breathe. The Great Spirit is our Father, but the Earth is our Mother. She nourishes us, that which we put into the ground she returns to us...." Big Thunder (Bedagi) Wabanaki Algonquin

> "We must protect the forests for our children, grandchildren and children yet to be born. We must protect the forests for those who can't speak for themselves such as the birds, animals, fish and trees." – Qwatsinas (Hereditary Chief Edward Moody), Nuxalk Nation



Kinnikinnik (Arctostaphylos uva-ursi) Photo by JoAnn Onstott This shrub is one of the bestknown shrubs native to the northwest. The leaves can be smoked or taken as a diuretic, dried and used for dye or tanning. The berries are said to have value in kidney disorders. In the garden, nothing is finer for groundcover and birds truly adore the berries.



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



American Bonsai Society

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.

NW Native Tiger Lily (Lilium columbiana) Photo by Jennifer Rehm

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Useful Plant Databases on the Web, Continued





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.

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.

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."

ModernBackyard

http://www.modernbackyard.com

Landscape architecture provides exceptional, affordable landscape design online.

The Native Plant Network

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

Information on how to propagate native plants of North America.

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Useful Plant Databases on the Web, Continued



NW Native Lemon Lily (Lilium parryi) Photo by JoAnn Onstott

Portland Bureau of Environmental Services

http://www.portlandonline.com/bes/index.cfm?c=29323 Oregon's Clean River Agency website full of wonderful information about caring for our earth. Download their Native Plant Poster, plant list and brochure on removing invasive plants at

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.

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.



Personal notes from Wally



Wally wrote this for our old newsletter in August 2001

This is a beautiful afternoon in early August – a special moment. The yellow sunshine splashes carelessly outside my window, producing ever changing patterns amongst the cedars, willows, oaks and firs that crowd my window and onto the twisting paths that meander and vanish thru my gardens. The past stretches backward into the womb of time – mysterious, unknowable, filled with many ghosts. The future stretches forward, into all the tomorrows – unknowable, mysterious, forever. But for this special moment, eternity blinked and I locked it away in the "round-tower of my heart" (Longfellow.)

Dear Readers, enjoy today, enjoy your gardens, enjoy your families, seek quiet periods to still for a moment the relentless rush of time - follow your principles, your beliefs - be true to yourself and it follows as day follows night, that you will be true to others.



Good luck!

Wally

Mountain Hemlock (Tsuga mertensiana) Photo by JoAnn Onstott See an original painting of this tree on the next page.

The Wild Garden: Hansen's Northwest Native Plant Database

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Personal notes from Wally, continued



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Celebrating the journey of Lewis and Clark and the Corps of Discovery Painting done for me by my daughter, Heidi D. Hansen in 2003

The Wild Garden: Hansen's Northwest Native Plant Database

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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

Our website, 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!

