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This pair of Wood Ducks were photographed by B. S. ThurnerHof



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The Pacific northwest's very own lilies--naturally!

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About this Journal

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

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.).

Lemon Lily (Lilium parryi)





July in the native garden

Chores that must not be put off until tomorrow

- 1 Hot Weather Warning! During spells of hot weather, do not take them lightly.
 - For plants--monitor carefully for signs of water deficiency, especially those new plantings. Provide shade by tilting an old umbrella over the plants or surrounding the plant with a few stakes and placing a piece of cardboard on top. Weight the cardboard down with a rock or two. Water early in the day and again at night if necessary.
 - For people--drink lots of water, use sunscreen and if possible, stay indoors or at least in shade during the hot part of the day. The old adage, "Mad dogs and Englishmen go out in the noonday sun," is not just a funky folk tune! Check on elderly neighbors to make sure they're OK.
- **2** Tis summer for sure, but not too late for planting shrubs and trees and water gardens, and it is the perfect time to divide clumps of northwest native perennials that have grown quite large. Funny thing about those perennials. If you leave them to repeat and repeat themselves, as is their wont, they will very often outgrow the space in which they are planted. When that happens they stop being stars and turn into little twinkles.

A sad situation for a beginning gardener, but so easily remedied! Simply water them well (to make it easy on yourself, they probably could care less), and using a sharp tool—anything from a shovel to a butcher knife—split the clump into nice sized portions. If your clump is a foot wide, cut it into three or four. Then plop the new sections into separate pots to share or plant them someplace else in your yard. If planting elsewhere, dig a generous hole, put in a scoop of compost, water well (this is a must, not an option), settle the new division firmly and backfill with the dirt that came out of the hole. Water again (also not an option) and snuggle up some mulch to help retain the water.

Remember to give the same care to the remaining section of the original. Though the roots are well grounded, the disturbing event of loosing a big part of yourself is a bit of a shock. Surround your 'mother plant' with dirt, water and mulch. Hooray! Everyone is happy!

Lemon Lily (Lilium parryi) by Henry John Elwes



Mystery plant puzzle



A new mystery came in this week from Amy, a reader in New York. Her sister found the plant in the wet and densley wooded area in western New York's Williamson area which is east of Rochester.

And all three of our mystery plants from reader Tori remain unidentified.

Can you help put a name to any of them? Send me an email (star@chillirose.com) with your answers--botanical names, please.

Correct answers will get your name added to the Official Plant Detectives.

Good luck!

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

Official Plant Detectives

Jerry Murray

Sabrina Kis

Carol Hiler

Mike Burns

Nancy Whitehead

Pat Opdyke

Luke Kishpaugh

Dave Whitehead

Elaine Sawyer



Mystery plant puzzle, continued



Wildlife Corner

Wood duck boxes

Last month a reader sent me a photo of this wonderful pond complete with wood duck boxes on the island. I've a soft spot in my heart for ponds as well as ducks and other birds. I had never heard of such a thing as a wood duck box, hardly ever heard of a wood duck. The research began immediately.

The Wood Duck is truly a work of art, holding their own against even some of the Amazon fowl. The brilliant coloration of the males changes during eclipse plumage in late summer overall but they do keep the bright eye and bill color. The females are elegantly plumed and have a distinctive white pattern around the eye in contrast to their muted brown and grey backs and breasts of white speckled with darker shades.



These birds live in swamps where trees with holes in them offer safe nesting areas. Unlike most ducks, the Wood Duck has very strong claws that can clamp onto tree bark and sit on the tree branches. Their habitat and abilities fit beautifully with their natural breeding behaviour. The mother duck protects the eggs, keeping them warm until they hatch. The very next day, the babies must jump down from their first home and make their way to water. The mother calls the young ones to her but does not help them any other way.

Imagine these newly hatch young ones jumping out of the nest and toddling after their mother to reach water where they begin their lives. At this age they are able to swim and find their own food! All within 24 hours!

Wood duck mothers to be usually build their nests in tree cavities near wetlands so that the young will have the best access to water for their first swim. When a prospective cavity is found, the hen checks out the site for size, shape, security and overall suitability for her coming clutch. On average, she will lay about 12 spanking white eggs she will guard and protect for the 30 days it takes for the young to hatch.

Incredibly, the new hatchlings can jump up to 290 feet safely, then they must follow their mother to water. If the nest

is over water, they have the softest landing possible. But if the mother has been forced to establish the nest farther away, the young can waddle up to 150 feet to reach water. This trip from nest to water is the sole reason their birthplace is so carefully situated.

Where possible natural nesting sites are scarce, boxes for nesting offer human-assisted spaces that make up for the loss. Many areas of the country now boast large numbers of nesting boxes to make up for destruction of natural access.

These wooden structures help boost local wood duck populations where history has wrought havoc with nature's master plan.

Prior to the colonization of North America, it is estimated the wood duck was the most prevalent species of water fowl along the eastern seaboard.

However, upon the coming of settlers to the area, the natural nesting locations were overpowered by man's appetite for land on which to live.

This, along with hunters who harvested the ducks for market, swiftly affected the possibility of the wood duck's demise.



Male Wood Duck photographed at St James's Park, London -April 2012 by Diliff

It was the swift action of the very populus that threatened this species, that can be attributed for the current prevalence that wood ducks enjoy. And it was the Migratory Bird Treaty Act of 1918 that brought the species' jeopardy into focus. But it was the discovery of artificial nesting structures, aka wood duck boxes, that offered a way for ordinary people to join the fight to save this wildlife community.

The phenomenon of man-made nesting spaces swiftly gained popularity. In 1937, the U.S. Biological Survey (now the U.S. Fish & Wildlife Service) stepped forward and erected 486 bark-covered slab wooden boxes. It is believed these boxes were designed by two biologists, Gil Gigstead and Milford Smith at Chautauqua National Wildlife Refuge in central Illinois. This installation is the first documented use of created nesting structures for wood ducks.

Over the next two years, Arthur Hawkins and renowned wood duck expert Frank Bellrose teamed up to place over 700 boxes made from rough-cut cypress board in Illinois. As it turned out, well over 50 percent of the boxes were used by the wood ducks, proving the theory of managing these ducks by providing the created structures to be sound and with great potential.

The result of these pioneering efforts is that there are now many thousands of wood duck boxes set into place by a large diversity of groups and individuals from wildlife agencies to conservation-minded private citizens.



Female Wood Duck at Crystal Springs Rhododendron Garden, Portland, Oregon, USA. Note the white eye markings, the elegant feather colors, the uniquely shaped head.

Photo credit: kat sam from Beaverton OR, USA



Wood duck boxes have been produced from many designs and from a variety of materials over the years. The most successful were made from rough-cut lumber, as were those

Range Map

Wood Duck Aix sponsa

LEGEND

Year Round

Migration

Summer (breeding)
Winter (non-breeding)

Map by Cornell Lab of Ornithology Range data by NatureServe original prototypes
made by Hawkins and
Bellrose.
The rough-cut,

The rough-cut, unfinished lumber provides the ducklings a surer foothold when they climb the inside of the nest box to reach the exit hole and their first taste of freedom.

Neither plastic nor metal boxes give this same ease to the baby

ducks for their climb out of the box. Some boxes have been outfitted with hardware cloth as a ladder in these boxes of slicker materials and have achieved some success.



Wood duck chick along the Pacific Coast, photo credit: Kevin Cole

Purists still prefer the natural materials, feeling that the fewer substitutions to nature, the better. Maintaining the boundaries between man and wildlife will, in the long run, produce a relationship that is safer for both species while maintaining the individuality of the cultures. And, the rough wood boxes are

undoubtedly more visually appealing than those of manufactured materials and require less upkeep.

⇒ More =

Inside the box, a layer of wood shavings to a depth of four inches gives sufficient nesting material to cushion the eggs and for the female to use for cover on the eggs during laying or when she goes after food to sustain her during incubation.

Each box must be cleaned out and fresh nesting material added to replenish that used the previous year. This must be done every year late in the winter before the hens come back to the nest in early springtime.

When we take responsibility to provide safe nesting boxes, we must make sure they are impermeable by predators such as raccoons, rat snakes and some owls.

An effective way to set a secure nesting box is to install a predator guard on the pole on which the box rests. Many of these can be had ready-made of sheet metal cones and affixed to the post beneath the nesting box. The guard must be snug against the pole to be effective.



Wood duck nest box affixed to a tree. This arrangement, on its face, does not offer much in the way of protection from predators. Hopefully there is a guard of some sort that we don't see in the photograph. Photo brom USDA.

Also be aware of any tree limbs or other elements that may overhang the nest box and that could offer a shortcut into the nest by tricky would be predators. It's a fine line between building a plain rough-hewn box and a luxurious apartment in which the wood duck can park her eggs while they grow into babies. Save the fancy work for finches and little songbirds. Wood Ducks are not much interested in bling.



Other factors must be thought out well in advance of putting up nest boxes. For instance:

- Suitable brood habitat must be available within a couple of hundred yards in order for ducklings to survive once they exit the box.
- The birds will feed by dabbling or walking on land. Food requirements include berries, acorns, seeds and insects.
- In addition, shallow, fertile wetlands with thick cover and an abundance of invertebrates typically provide the best habitat for broods.
- Ideally, boxes should be erected on either wooden posts or metal conduits outfitted with predator guards.

Make no mistake--nest boxes represent only a little bit of wood duck production but they are successful and allow anybody with an interest to become a part of wildlife management. By building and maintaining nest boxes we learn all kinds of things about the ducks and how they fit into nature's great plan, and we do help wood ducks to raise their families through the use of these simple boxes.

There is another factor helping to husband the wood ducks as their populations increase. And that is the North American Beavers. As the beavers create ideal forested wetland habitats for wood ducks. Since those who study such things have identified this natural cohabitation between beavers and wood ducks, a marked increase in the number of wood ducks in areas where the beavers work has been recorded.

Wood duck nest box, photo credit: Steve Ryan

Long ago, the hunters who took ducks as a commercial enterprise were stopped through dilligent enforcement in the laws passed to control and protect the wood duck population.

During the open waterfowl season, U.S. hunters have only been allowed to take two Wood Ducks per day in the Atlantic and Mississippi Flyways.



Male wood duck taking off from ice, photo credit: John Harrison

However, for the 2008–2009 season, the limit was raised to three.

The Wood Duck limit remains at two in the Central Flyway and at seven in the Pacific Flyway.

It is the second most commonly hunted duck in North America, after the mallard.

Wood duck male in eclipse plumage, photo credit: John Harrison

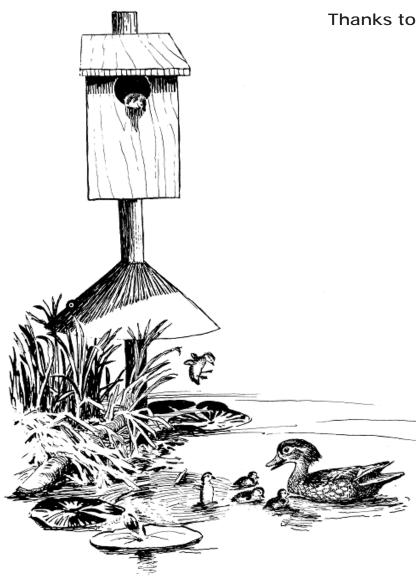
For more information and nest box building specifications:

- Wood Duck Box Plans, Build a duck nest box, www.ducks.org/media/Conservation/Conservation_Documents/ _documents/duck_box_plans.pdf
- Don "The Duckman's" Cedar Wood Duck House Plan, www.woodducksociety.com/WDHouse.pdf
- Wood Duck at USDA Natural Resources Conservation Service Wildlife Habitat Management Institute, www.mn.nrcs.usda.gov/technical/ecs/wild/woodduck.pdf
- Nest boxes for wood ducks, U.S. Fish and Wildlife Service, Department of the Interiorlibrary.fws.gov/WL/nestboxes_WL510.pdf



The Wild Garden: Hansen's Northwest Native Plant Database

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Thanks to these onine resources:

- Wood Duck at USDA Natural Resources Conservation Service Wildlife Habitat Management Institute, www.mn.nrcs.usda.gov/technical/ecs/wild/woodduck.pdf
- Ducks Unlimited, www.ducks.org/hunting/waterfowl-id/wood-duck, www.ducks.org/conservation/waterfowl-biology/wood-duck-boxes. *Note: Sign up for the Ducks Unlimited newsletter and get a free DU decal. The newsletter provides hunting tips, waterfowl trivia, reipes, migration reports, special discounts and the latest news about ducks. www.ducks.org/news-media/news-letters/du/default.aspx?promokey=decal07&subemail=*
- Wikipedia the free encyclopedia, www.en.wikipedia.org/wiki/Wood_Duck
- The Cornell Lab of Orithology, www.allaboutbirds.org/guide/wood_duck/id
- Wood Duck Society, www.woodducksociety.com/
- Peterson Field Guides video, www.youtube.com/ watch?v=ZUukFhxA6xY
- The Samuel Roberts Noble Foundation, www.noble.org/ag/wildlife/ducknestboxes/

Mama duck with newly hatched chicks jumping to their new life. From the U.S. Fish and Wildlife Service, Department of the Interior publication, "Nest Boxes for Wood Ducks."



Summer Lilies



Not just a tropical treat!

It's true: Lilies are not just a tropical treat. There are 13 lilies native right here in the Pacific northwest! Small single bloomers to tall plants with up to 35 flowers per stem. Trumpet or bell shaped; white, pink, red, orange, or yellow; fragrant or not. All are bulbs buried in the ground. Most have little scales that resemble grains of rice and each one may make a brand new plant if separated from the mother and given a healthy home.

As a whole, native lilies are trouble free. They like a bit of moisture and usually enjoy some shade. But most will do just fine in sun if their feet are somewhat protected from full-on all day sun. Plant them beneath a groundcover for instance.

Proper identification of plants can be tricky, especially in the case of common names. These plants are **NOT** lilies, though they are often called such:

Bear Grass (*Xerophyllum tenax*) Cat's Ear, Short Stemmed Mariposa Lily (Calochortus uniflorus Chocolate Lily (Fritillaria affinis) Corn Lily (*Veratrum viride*) Fawn Lily (*Erythronium oreganum*) Field Cluster Lily (*Dichelostemma congestum*) Fool's Onion (*Triteleia hyacinthina*) Glacier Lily (Erythronium grandiflorum var. grandiflorum) Harvest Lily (Dichelostemma congestum) Hooker's Onion, Taper Tip Onion (Allium acuminatum) Hyacinth Brodiaea (Triteleia hyacinthina) Indian Hyacinth (Camassia quamash) Mosquito Bill (Dodecatheon hendersonii) Nodding Onion (Allium cernuum) Pink Fawn Lily (Erythronium revolutum) ⇒ More = Tiger Lily (Lilium columbianum)

Here are our true Pacific northwest native lilies and some information about each one:

Fritillaria camschatcensis (L.) Ker Gawl. (Kamchatka Fritillary)

Fritillaria pudica (Pursh) Spreng. (Yellow Fritillary)

Lilium bolanderi S. Watson (Bolander's Lily)

Lilium columbianum Leichtlin (Columbia Lily)

Lilium kelloggii Purdy (Kellogg's Lily)

Lilium occidentale Purdy (Western Lily)

Lilium pardalinum Kellogg (Leopard Lily)

Lilium pardalinum Kellogg ssp. pardalinum (Leopard Lily)

Lilium pardalinum Kellogg ssp. vollmeri (Eastw.) M.W. Skinner (Vollmer's Lily)

Lilium pardalinum Kellogg ssp. wigginsii (Beane & Vollmer) M.W. Skinner (Wiggins' Lily)

Lilium parryi (Lemon Lily)

Lilium parvum Kellogg (Sierra tiger Lily)

Lilium washingtonianum Kellogg (Washington Lily)

Lilium washingtonianum Kellogg ssp. purpurascens (Stearn) M.W. Skinner (Cascade Lily)



Fritillaria camschatcensis (L.) Ker Gawl. (Kamchatka Fritillary)

The strong stems appear first about 8 to 24 inches long with leaves in a circular pattern about the stems, usually 1 to 3 circlets, each group has 5 to 11 leaves and then a few leaves seemingly randomly placed above the top leaf coil.

The leaves are lanceolate, from 1 2/3 to 4 inches across.

Flowering from May to July, there may be 1 to 8 dark brown/purple to greenish brown flowers at the top of the stems, often with yellowish streaks or spots and bear a very nasty

Scent.

Photo by Donna Dewhurst US Fish and Wildlife Service





Fritillaria pudica (Pursh) Spreng. (Yellow Fritillary)

This northwest native lily, commonly called Bolander's Lily, is perfect for the wildlife garden. Allen's and Rufous Hummingbirds are strongly attracted to the beautiful red trumpet shaped flowers which come on a bit earlier than most other bulbous lilies native to the Pacific northwest. This is a big plus because the hummers mark the garden as a good place to visit before the other lilies grab their attention. If the garden continues to provide the neccessary sources of nectar for these quick little birds, they will likely tell all their friends to join them

Photo acredit: Guana at USDA

Lilium bolanderi S. Watson (Bolander's Lily)

This northwest native lily, commonly called Bolander's Lily, is perfect for the wildlife garden. Allen's and Rufous Hummingbirds are strongly attracted to the beautiful red trumpet shaped flowers which come on a bit earlier than most other bulbous lilies native to the Pacific northwest. This is a big plus because the hummers mark the garden as a good place to visit before the other lilies grab their attention. If the garden continues to provide the neccessary sources of nectar for these quick little birds, they will likely tell all their friends to join them.





Lilium columbianum Leichtlin (Columbia Lily)

This beautiful perennial native lily grows from 2-4' tall. From the whorls of 6-9 lime green leaves, stretch the flowering stalks. Each stalk is laden with clusters of 2," bell-like, orange flowers with red spots. They hang pendant, the petals curling backwards to the stem.

Lilium kelloggii Purdy (Kellogg's Lily)

Lilium kelloggii, commonly called Kellogg's Lily, is a beautiful summer bloomer. Native to the Klamath Mountains of southern Oregon and northern California where it finds hospitable areas in the forest, even as an under story among the Coast Redwoods (Sequoia sempervirens). This perennial herb is a little taller than other native summer blooming lilies and sports up to 27 large showy and fragrant flowers. The scaly bulb is similar to other species of lilies. The bell-shaped pink blooms with their and recurved petals are pollinated by swallowtail butter-flies.



Photo credit: Mrs. W.D. Bransford



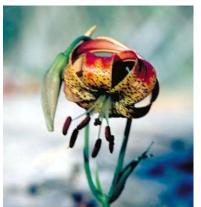
This species is now considered rare. Lilium occidentale, commonly called Western Lily, is native to southern Oregon and northern California where it has been documented in just 28 locations (down from historic locations of 58), every one within six miles of the coast. Found in coastal prairie habitats, swamps, stagnant bogs, on bluffs or sandy cliffs and in seaside spruce forested areas.



A beautiful lily with early summer flowers of red and orange, spotted with purple. Leopard lily forms clumps and can reach 6.' Often as many as ten pendant flowers grace each stem. This lily is native to wet meadows and the edges of streams along the coastal regions of the northwest, USDA 5-9.



⇒ More **⇒**



Lilium pardalinum Kellogg ssp. vollmeri (Eastw.) M.W. Skinner (Vollmer's Lily)

Lilium pardalinum Kellogg ssp. vollmeri (Eastw.) M.W. Skinner (Vollmer's lily) differs from the subspecies pardalinum in that it is taller, branches less often and less regularly. This lily does not form large colonies. The leaves are not as regularly occurring along the stems as ssp. pardalinum. Elsewise the two are very similar. Flowering July to mid-August of this lily are not fragrant, they are sometimes clear orange but usually yellow-orange or orange with darker red-orange to red or crimson. Anthers are magenta or purple, pollen is dark orange or sometimes rust-orange.

Photo credit: Mrs. W.D. Bransford

Lilium pardalinum Kellogg ssp. wigginsii (Beane & Vollmer) Skinner (Wiggins' Lily)

True to Lilium pardalinum heritage, this subspecies grows usually between 30 to 48 inches tall, from single to several stems with nodding bell-shaped flowers numbering between 2 and 35 per plant. Leaves on large plants are in 3 or 4 whorls along the stem and are from 2 to 5 inches long. In smaller plants the leaves are scattered. The yellow-orange or orange flowers are uniformly colored and have magenta to brown spots. The pollen is pale yellow to pale orange.

Photo credit: Native Orchids



This lily is one to plant simply to assure its existence, but you will want it for its beauty and fragrance. Its limited native range is in the mid to upper elevations of southern California and Arizona along streams and riparian areas, USDA zones 6-10. Do not confuse Lemon Lily with the daylily that shares the same common name but is not a true lily.

Lilium parvum Kellogg (Sierra tiger Lily)

This lily is native to Sierra Nevadas in California, east into Nevada and a bit north into Oregon in forest regions, mountainous and in lower elevations of willow thickets, streams, wet meadows particularly where streams flow through conifers. Flowers are small and bell shaped and can be yellow-orange to dark orange-red with lighter orange or yellow centers. Petals can be spotted with purple and/or brown. In the foothills of California's El Dorado County there is a variety with lighter pink flowers.

Photo credit: John Loganecker





Lilium washingtonianum Kellogg (Washington Lily)

Washington Lily is hardy to USDA zones 8-9, and happiest in dry well drained sunny situations. This is a tall lily reaching 3-6' tall. The stalks are covered with fragrant trumpet shaped flowers that are white with dark purple speckles. The flowers will change from white to a purple pink color with age. This incredible flower is a "must have" for native gardens in temperate climates.

Photo credit: Wayne Rolle for US Department of Forestry Celebrating Wildflowers website, www.fs.fed.us/wildflowers/plant-of-the-week/lilium_washingtonianum.shtml

Lilium washingtonianum Kellogg ssp. purpurascens (Stearn) M.W. Skinner (Cascade Lily)

The bulbs vary quite a bit in form. Leaves follow the species form of whorls around the stem. Flowers appear from mid June to the middle of August, beginning mostly or entirely white, aging as so many white flowers do to dark pink or lavendar. Some have a short yellow stripe. The anthers are cream, often with tiny magenta dots. The pollen is pale yellow, sometimes a bit darker.

Photo credit: Barry Francis





In 1859, botanist Albert Kellogg named this spectacular aromatic plant for Martha Washington, the very first woman to be called "first lady." Native Americans collected the bulbs for food. Even if you don't want to eat it, the fragrance and sheer beauty qualify this native lily as a "must have."





This & That

Notes from Jennifer

Where do plants go when they disappear? Too many times I've found a northwest native plant growing in a ditch or under a bush or even, in the case of real rurality, right in the middle of the road, only to return a year later to see how they are doing and find them gone. I mean really gone, not a trace.

The larkspurs at right are an excellent example. They were a healthy stand of blue to lavendar about 3 feet from the edge of the gravel road, growing among some grasses. I passed them several times during the month after I first noted them. I took a photo when the blooms had mostly gone by and their seed pods were ripening, fat and sassy. One would think with that number of seeds being dispersed there would be more plants the following years, but there were not. I've been there during the summer several times a year---no larkspurs at all. Nary a one.

The same thing happened with what I consider my finest discovery: the large patch of Nelson's Checkermallow (Sildalcea nelsonianum), June 2006. They appeared, they bloomed their little hearts out and then they were gone. Period.

I understand about the Sidalcea. Highway crews cut and poison the roadsides on 99E at least once a year. I've seen them do it. They have a giant machine that has blades extending out the side that mows down everything in its path. I am not sure if it's highway or railroad people that do the poison, don't recall but it is at least one of them.

So where are the plants? Alien abduction? Overzealous collectors? Any ideas? If you have a clue, please send me a note: star@chillirose.com.

note: star@chillir Until next time, Jennifer



