

4-H WILDLIFE STEWARDS

“Bringing Science and Nature Together One School at a Time”

Volume 5, Issue 2

December 2001 -January 2002

4-H Wildlife Stewards is a Master Science Educators Program of Oregon State University Extension through funding of the National Science Foundation

4-H Wildlife Stewards State Training Team Formed



With the arrival of the National Science Foundation grant money, the 4-H Wildlife Stewards program has created a statewide training team. This team will be responsible for conducting four “volunteer” trainings per year for the next three years. They will also create a working model for other states to replicate in the future. I will serve as the Project director of the statewide project. Other members of the state team include:

Nancy Allen, OSU campus, works with the Extension Fisheries and Wildlife department. She is anxious to share her enthusiasm and knowledge with volunteers throughout the state.

Bill Broderick, Staff chair and 4-H agent in Morrow County, brings his expertise in working with rural populations to the team. Bill has 15 years of experience with Extension 4-H programs.

Robin Galloway, 4-H agent in Linn County, has an extensive 4-H background including youth member and adult leader. Robin is looking forward to learning as well as teaching others about natural sciences.

Amy Herron, 4-H agent and Master Gardener from Coos County, brings her proficiency with youth and gardening to the program. Amy will be a valuable resource for the entire state.

Maggie Livesay, Benton County 4-H Outreach, has already introduced the 4-H Wildlife Stewards program to her county. Several schools have created wildlife habitats for classroom study under Maggie’s tutelage.

David White, 4-H agent from Deschutes County, is anxious to introduce the program’s concepts to several interested Central Oregon area schools.

For more information about 4-H Wildlife Stewards and/or upcoming trainings contact Joan Engeldinger, Volunteer Coordinator, at 503-725-2048 or email her at joan.engeldinger@orst.edu.

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Maureen Hosty
4-H Extension Faculty

Joan Engeldinger
4-H Extension Faculty





4-H Wildlife Stewards Program

The 4-H Wildlife Stewards Program is a 4-H Master Science Educators program of OSU Extension/ 4-H and supported by the National Science Foundation.

4-H Wildlife Stewards are volunteers in partnership with public and private organizations to assist students and teachers in the development and use of wildlife habitats on school grounds.

4-H WILDLIFE STEWARDS VOLUNTEER OFFICE

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WILDLIFE STEWARDS MEMBER SCHOOLS

- | | |
|---|--|
| Ainsworth Elementary
Portland | Jennings Lodge Elementary
Milwaukie |
| Arieta Elementary
Portland | John McLoughlin Elementary
Oregon City |
| Atkinson Elementary
Portland | Kellogg MS
Portland |
| Banks Elementary
Banks | Lincoln Elementary
Corvallis |
| Beach Elementary
Portland | Lewis Elementary
Portland |
| Binnsmead MS
Portland | Llewellyn Elementary
Portland |
| Bridger Elementary
Portland | Madison HS
Portland |
| Candy Lane Elementary
Oregon City | Mary Woodward Elementary
Tigard |
| Centennial MS
Portland | Meek Elementary
Portland |
| Corvallis Montessori School
Corvallis | Mt Scott Park Center for Learning
Portland |
| Deep Creek Elementary
Damascus | Mt. View Elementary
Corvallis |
| Deer Creek Elementary
Tualatin | Ocean Crest Elementary
Bandon |
| Eagle Creek Elementary
Eagle Creek | Oregon Episcopal School
Portland |
| Eccles Elementary
Canby | Orengo Elementary
Hillsboro |
| Edwards Elementary
Portland | Palisades Elementary
Lake Oswego |
| Environmental MS
Portland | Park Place Elementary
Oregon City |
| Fairplay Elementary
Corvallis | Riverside Elementary
Milwaukie |
| Findley Elementary
Beaverton | Rose City Park Elementary
Portland |
| Franklin Elementary
Corvallis | Sauvie Island Elementary
Sauvie Island |
| Gaffney Lane Elementary
Oregon City | Seth Lewelling Elementary
Milwaukie |
| George MS
Portland | Sitton Elementary
Portland |
| Harding Elementary
Corvallis | Stephenson Elementary
Portland |
| Hayhurst Elementary
Portland | Sunrise MS
Clackamas |
| Highland Elementary
Gresham | West Gresham Elementary
Gresham |
| Highland MS
Corvallis | Wilcox Elementary
Portland |
| Inavale Elementary and MS
Philomath | William Walker Elementary
Beaverton |
| Jefferson Elementary
Corvallis | Woodland Elementary
Portland |



PROGRAM UPDATE

Benton County Graduates Newest Class of 4-H Wildlife Stewards

Benton County 4-H hosted the fall training class of 4-H Wildlife Stewards on October 12, 13 & 14, 2001 at Fairplay Elementary School in Corvallis. Several members of the newly formed 4-H Wildlife Steward State Training Team also participated. Our thanks to Maggie Livesay, 4-H Outreach and state team member for coordinating this training. Let's meet the newest 4-H Wildlife Stewards:

David Anderson is a retired biologist for the Oregon Department of Fish and Wildlife. He is also a Master Gardener and will be volunteering at Mt. View Elementary in Corvallis (Benton County). David will be assisting students in the collection of data in the school's wetlands.

Emily Cosci is a graduate student at Oregon State University and also works with the Project Learning Tree Program. She will be working with the students at Lincoln Elementary School in Corvallis. Emily will also be teaching a supplemental forestry workshop for 4-H Wildlife Stewards in the spring.

Rochel Burkhart is also a resident of Corvallis and a graduate student at Oregon State University. She will be working on a project with Philomath High School (Benton County) students planting an edible landscape for humans and wildlife.

Tracy Noel is a teacher at Lincoln Elementary School in Corvallis. She has worked with the 4-H Wildlife Stewards program and completed this training in order to provide her students with more hands-on activities. Check out Lincoln ES habitat through the 4-H Benton County website at osu.orst.edu/extension/benton Click on 4-H, then Wildlife Stewards, then schoolyard updates.

Mary May is the Linn County 4-H Forestry Education Program Assistant. She has also been a 4-H parent and leader. Mary will be working with 4-H Agent Robin Galloway on incorporating forestry and the 4-H curriculum in local schools.

Sherrill Thompson is a Linn County 4-H Natural Science Leader. Sherrill has a passion for geology and will be heading up the 4-H Wildlife Stewards program at her local school.

Claudia Hatmaker is the project coordinator for Sweet Home's 21st Century grant. Claudia will be utilizing her newfound skills to introduce the 4-H Wildlife Stewards program to Sweet Home school district schools (Linn County). Her husband, Larry Hatmaker, will ably assist her. Larry brings an infectious enthusiasm and a "reliable truck" to the program.

Prudy Caswell-Reno is a lab research assistant and Extension Education Program Assistant for OSU in Lincoln County. Prudy will be working with volunteers in the Newport area for the 4-H Wildlife Stewards program.

Peggy O'Neal-Sacks will be the lead 4-H Wildlife Steward at Butternut Creek Elementary School in Aloha (Washington County). Peggy, a veteran school volunteer, also has a degree in forestry and resource conservation.

Sonia Huntley, Portland, will be starting the 4-H Wildlife Steward program at a very enthusiastic Glencoe Elementary School in Multnomah County. Glencoe will also be participating in the 4-H Fish Steward program in January 2002.

Welcome to all of the new 4-H Wildlife Stewards from the Benton County class of 2001!



Oregon 4-H Wildlife Stewards Program Invited to National Conference

The National 4-H Council of Chevy Chase, Maryland, invited the Oregon 4-H Wildlife Stewards Program to represent 4-H in-school programs at the North American Association for Environmental Education National Conference. The conference was held in Little Rock, Arkansas in October 2001. Joan Engeldinger, Volunteer Coordinator for 4-H Wildlife Stewards, attended workshops, keynote addresses, and interactive displays as well as introducing the 4-H Wildlife Stewards program to a national audience. Special thanks go to the National 4-H Council for providing the 4-H Wildlife Stewards program with this opportunity.

CORRECTION

The figure on the first page of the pond article in the September-October newsletter is credited to Russell Link in Landscaping for Wildlife in the Pacific Northwest.

New Column for Newsletter: "Searching Stewards"

A new column will appear in each issue of the 4-H Wildlife Stewards Newsletter called "Searching Stewards." The idea behind this column is a forum for all 4-H Wildlife Stewards to request help in locating items or suggesting ideas to share. Send your requests and/or ideas to Joan Engeldinger, Volunteer Coordinator. Phone # 503-725-2048 or email address joan.engeldinger@orst.edu

This month Em Scattaregia and Kate Raphael at Atkinson Elementary School in Portland (Multnomah County) are looking for logs to place in their habitat for seating. They are also searching for bench ideas.

Send any suggestions you have for Em and Kate directly to them (email addresses and phone #'s are in the directory or annual report) or send them to Joan at the 4-H Wildlife Stewards office.

NEWS FROM NATIONAL WILDLIFE FEDERATION Schoolyard Habitats Wild Seed Fund Mini-Grants

The National Wildlife Federation's Schoolyard Habitats Program provides materials and teacher training workshops for educators and school communities interested in creating or restoring wildlife habitat on their school grounds. In 1998, the Wild Seed Fund was created as an effort to further assist schools in getting their Schoolyard Habitats projects off the ground. In 2002, we are able to offer fifty \$250.00 mini-grants to schools across the country. To be eligible, you must be in the initial phases of a Schoolyard Habitats project, plan to use the site for educational purposes, and certify your Schoolyard Habitats site with the National Wildlife Federation by March 15, 2003. The deadline for applications is January 15, 2002.

Applications can be downloaded from our web-site: www.nwf.org/schoolyardhabitats



Upcoming 4-H Wildlife Stewards Trainings

4-H Wildlife Stewards will hold their "first ever" training east of the Cascades on February 1, 2, and 3, 2002. Deschutes County 4-H will be hosting the event. The training will be held at the Rock Springs Guest Ranch located miles south of Bend on U.S. Highway 97. The cost for the training, including materials, lunches, dinners and snacks is \$45.00. The cost is \$120.00 for those who wish to stay overnight at the guest ranch. The overnight fee also includes breakfast.

The lodge (Joan describe here and give website)

For more information or registration materials contact Aimee Van Vleck at the Deschutes County 4-H Office 541-548-6088 ext 19.

Look for information on these upcoming trainings:

WHAT'S YOUR SIGN?

What's your sign? No, this isn't a flashback to tacky pick-up lines. I am gathering information and pictures of signs in use at schoolyard habitats to create a resource book for the program. Informational, plant ID tags, interpretive signs and all other ideas are welcome. Please contact me at Lisa.Albert@orst.edu or 503-725-8305. Thanks for your assistance.



4-H Wildlife Stewards help build a new pond at the OSU Extension Office Habitat Demonstration Site



SCHOOLS UPDATE

Franklin 4-H Wildlife Steward School Corvallis

It all started with one teacher who wanted to put a bird feeder outside his classroom. The bird feeder has not yet gone up, but much has changed since that day in 1999. Kindergarten teacher, Joan Hayes wanted to see more wildlife and native plants on the school grounds. She wanted to provide the school and her students with hands-on



learning opportunities right outside their classroom door. The 4-H Wildlife Stewards Program provided how-to workshops and some grant money for Franklin to get started. Along the way, more grant money and a native plant specialist in the community stepped in to help plan the gardens that now grace the school grounds.

The students began by pulling out a hedge of boxwood shrubs that ran the length of the building. In its place they planted vine maple, bleeding heart, sword fern, Oregon grape, camas and red flowering current. The middle school science teacher uses this area to give youth some background information on plants before they go off to Outdoor School.

On the other side of the school, outside the primary classrooms, more boxwood was removed and in its place an Oregon Coastal garden was planted. Thimbleberry, salal, kinnickinick, salmonberry, pearly everlasting and coast strawberries were planted. Sand and seashells were brought in to complete the garden. The kindergarten class has planted a Willamette valley garden that includes mountain hemlock, Nootka rose, spirea, dwarf red twig dogwood and mock orange. A garden bench, birdbath, weather vane and rain gauges make the small but beautifully planned area complete. A drip irrigation system makes watering easy for the hardy native plants.

In a large space on the playground the children planted a bird and butterfly garden. The larger shrubs and trees have fared better than the perennials according to Joan Hayes. Students are learning why certain plants survive in an area while others do not. Much of the learning and planting at the school takes place on school-wide "Habitat Days". These special days give the whole school and opportunity to work together to plant and maintain their school grounds.

Franklin School is located in downtown Corvallis. It is surrounded by neighborhoods and a shopping center. Since the plantings and addition of a water bath the number of birds and wildlife has definitely increased at the school according to Joan Hayes. Children are learning about native plants in the Willamette Valley and those that grow in other parts of Oregon. Franklin school has accomplished a lot in two years. I wonder how long it will be before all the boxwood hedges are gone and replaced by colorful gardens full of variety and educational value for all the students, teachers and community members who just happen to walk by.



Atkinson 4-H Wildlife Stewards School Portland



Many thanks to our Wildlife Stewards Melissa Yeary, Em Skatteregia, Lesa Gilmore and Sheri Gorman at Seth Llewelling, Atkinson and Rose City Elementary schools, respectively, for hosting visits from Mary Arnold, Blythe Needler, Joan Engeldinger, Lisa Albert, Maureen Hosty (and Marisol!) in November. Mary Arnold, OSU faculty, is principal program evaluator for the NSF grant. Together with Blythe, her assistant, they visited different school sites to begin their formulation of evaluation forms and protocols. Some of this information will be used to create new school visit check-up forms to better guide schools along the new advancement levels.

Despite the time of year, there was still evidence of the wonderful and enthusiastically planted butterfly garden at Seth Llewelling. Our student guides were very knowledgeable about how and why it was created and what benefits it provides. Wildlife Stewards Melissa Yeary and Laura Burrows have many things planned for the near future, including raised beds and a waterfall and pond feature.

At Atkinson, we were bowled over by the transformation of their courtyard garden. Not all that long ago it was a boring patch of grass around two Western Red Cedars. The grass is gone and the garden is now rich with a diverse variety of native plant life, complete with nurse logs, bark dust trails, an interpretive circle and a water feature. Wildlife Stewards Em Skatteregia and Kate Raphael, along with their Americorps volunteer, Ian Silvernail have created a wonderfully interactive garden for the students to use.

Rose City Park 4-H Wildlife Steward School

The garden at Rose City has grown immensely since our last visit. It has definitely been tended well and it shows. Excellent job, Lesa Gilmore and Sheri Gorman! The garden, along with the curriculum that Lesa and Sherri bring to the school, has received enthusiastic endorsement and support from the school's principal. We also saw the beginnings of their newest project. More asphalt, approximately the size of a standard city lot, has been hauled away in preparation for a new garden. This garden will serve more as an alternative play area next to the playground than as a learning garden but there is always the potential for learning when children run among green and growing



things. The City of Portland, Bureau of Environmental Services is a grant partner in this project aimed at reducing impervious surfaces and creating more green spaces in urban settings.

TIPS FOR THE GARDEN

Creating a Garden Pond to Attract Wildlife (Part TWO)

BY Nancy Allen

OSU Extension Wildlife Instructor and
4-H Wildlife Steward

The following article was adapted from [Creating a Garden Pond to Attract Wildlife](#) (draft), an OSU Extension publication

POND VEGETATION

Plants are an important habitat component providing thermal relief, cover, oxygen, and reproductive sites for wildlife. They also provide food and habitat for insects and other invertebrates that are eaten by wildlife. Algae are essential for creating oxygen and food for tadpoles and will become established in your pond using nutrients and sunlight. Plants will help control algal growth by shading out the sun. Too much sun or an overabundance of nutrients such as decayed vegetation or fertilizer can cause outbreaks of algae, referred to as “blooms”. Algae blooms also occur in new ponds and in the spring before plants get big enough to shade the water. If algae blooms persist you might need to clean your pond or plant more vegetation.

Vegetation for your pond should include a mix of submerged, floating, and marginal plants (see Table 1). Submerged plants grow completely under the water and release oxygen into the water, rather than into the air. Submerged plants provide egg-laying sites, hiding places and food for a variety of aquatic organisms. Floating plants also provide excellent habitat for wildlife. Marginal plants can be planted around your pond and on the “shelves”

to help soften the edge of the pond by camouflaging the liner and creating a transition between the water and edging. They also create a barrier to reduce access of terrestrial predators (i.e. cats and raccoons). A ratio of 50:50 of plants to open water is recommended with no more than 65 percent of your pond covered with plants during the summer months. Native plants are recommended because they are usually more recognizable to wildlife, and they are well adapted to the environment. Many invasive species such as purple loosestrife (*Lythrum salicaria*) and reed-canary grass (*Phalaris arundinacea*) are aggressive and will out-compete other plants.

To make caring for your pond easier you can place the plants in plastic containers. This makes removing the plants for thinning, replanting and winterizing a little less cumbersome. If you choose to use containers, put a heavy rock in the bottom to keep them upright and then fill with regular topsoil or a mixture of ¼ sand, ¼ compost and ½ garden loam. Be careful not to use materials that float (i.e. vermiculite or perlite) or you will have a big mess. You should also place an inch or two of course sand or pea gravel on the top of the potting mix to help keep the soil in the pots.

WILDLIFE

In order to maintain a healthy, diverse pond, you will need to include microscopic life and small invertebrates. An easy way to introduce them into your pond is to collect a bucket full of water and mud from a local pond that appears to have a healthy ecosystem and dump it into your pond. Soon you will have your own microscopic and invertebrate life established.



It's best to let wildlife including reptiles and amphibians find your pond on their own. If you are considering introducing fish or other species to your pond contact your local Department of Fish and Wildlife for information on native fish and wildlife species. Introducing fish will reduce the number of wildlife species able to survive because fish eat eggs and larvae of amphibians, dragonflies, and other aquatic species. Even if you stock your pond with native species, the habitat you have created may not be suitable for them. By introducing species, you may put them at risk if they decide to leave, or worse yet, die if the conditions are not right. Also, do not release exotic or pet store species into your yard. It is illegal to release non-native species. Exotics can be extremely detrimental to native species of plants and animals. The bullfrog, for example, can have negative impacts on native animals including snakes, frogs, fish, turtles, ducks, and small mammals by eating their young. Furthermore, many exotics will die if released because they will not be able to tolerate the environmental conditions in the Pacific Northwest. If you provide suitable habitat, wildlife will move to your property on their own.

The more habitat components you have on your property that provide food, water, and shelter, the more likely you will attract and maintain wildlife. Travel corridors are also an important element in attracting wildlife. To attract and maintain a breeding population of amphibians, for example, your pond should be within ½ mile of a pond or wetland that already has breeding amphibians. There must be a vegetated corridor or other "natural" area from other ponds to yours. Because of the barriers to dispersal created by urban development, it may be difficult for some species to make it to your property, and it may take one to several years before you see any in your yard. Movement is dependent upon the condition of neighboring landscapes. For more information on attracting reptiles and amphibians, refer to the OSU Extension Bulletin No. X, "Simple Ways to Attract Reptiles and Amphibians to Your Yard".

You can encourage wildlife to come to your pond by adding habitat features such as vegetation, floating logs, protruding branches, rockpiles, and brushpiles in or adjacent to your pond (Figure 2). Placing a ceramic pipe on the floor of the pond will create hiding places for aquatic species. Many species use natural basking sites in the pond such as rocks, logs, and fallen limbs that protrude out of the water. For larger ponds you can construct a floating platform that is anchored to keep it in the middle of the pond.

Raccoons are known for raiding ponds in search of insects, fish, frogs, snails, and turtles. If desired, wire mesh can be placed around or over your pond to prevent damage, however, make sure the mesh is large enough to allow access for birds, reptiles, and amphibians to move freely in and out of the pond. An electric fence will also keep out unwanted animals.

MAINTENANCE

Maintenance of your pond will depend on the particular needs of your pond and may include removal of debris, controlling vegetation, and dividing and repotting plants. If cleaning or repairs are needed, the best time to do these tasks is in the fall because there will be less disturbance to plants and wildlife. You can place netting over your pond in the fall to catch leaves. Floating-leaf plants can be controlled with a garden rake. Let the collected vegetation sit at the pond's edge overnight to allow excess water to drain and any aquatic wildlife to escape. By keeping your pond free from excess vegetation you may never need to empty it. If you must empty your pond make sure you remove plants and wildlife and keep them in a non-toxic container with pond water or a 1:3 mixture of new and old water. After refilling your pond remember to use a de-chlorinator or let it sit for a few days for chlorine to evaporate before restocking with plants and wildlife.

RECOMMENDATIONS

To help maintain a healthy pond for wildlife on your property and establish a successful coexistence with humans please consider the following recommendations:

- Avoid using chemicals, such as fertilizers and pesticides on your property. This is especially important for amphibians, because they have skin that is extremely sensitive to environmental chemicals. Excess nutrients that enter your pond will cause algae blooms.
- Talk to your neighbors. Let them know what you're doing and why so that they will be more likely to participate and help protect habitat. By encouraging your neighbors to create habitat for wildlife you will increase your chances of attracting it.
- Sharing nature with children can be a very valuable experience. Educate children about wildlife so that they will respect and admire them and be less likely to harass or harm them.
- Protect wildlife from pets. Cats and dogs often attack wildlife, so to improve chances of maintaining different species either train pets or keep them in restricted sections of your property.
- To help control mosquitoes instead of using fish, place bird and bat boxes near your pond. Other species that eat mosquitoes or their larvae are dragonfly larvae, water striders, snakes, toads and frogs.

Most importantly, enjoy the beauty you have created and the excitement of watching the wildlife you will be attracting with your new garden pond.

Table 1. Native Plants for Ponds

Submerged plants

Coontail, *Ceratophyllum demersum*
Elodea, *Elodea Canadensis*

Floating leaf plants

Water fern, *Azolla mexicana*
Watershield, *Brasenia schreberi*
Duckweed, *Lemna minor*

Marginal Plants

Great water-plantain, *Alisma plantago-Aquatica*

Inflated sedge, *Carex vesicaria*
Spike rush, *Eleocharis palustris*
Wapato (duck potato, arrowhead), *Sagittaria latifolia*
Hardstem bulrush, *Scirpus acutus*
Wool grass, *Scirpus cyperinus*
Small-fruited bulrush, *Scirpus microcarpus*
Soft-stem bulrush, *Scirpus validus*
Cattail, *Typha latifolia*

References and Additional Resources

Conrad, Roseanne D. 1998. An Owner's Guide to the Garden Pond. New York: Simon and Schuster Macmillan Company.

Cox, Jeff. 1996. Landscaping with Nature: using nature's designs to plan your yard. Pennsylvania: Rodale Press.

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Logsdon, Gene. 1983. Wildlife in your garden. Pennsylvania: Rodale Press.

Sweden, James Van. 1995. Gardening with Water. New York: Random House.

Swindells, Phillip and David Mason. 1990. The Complete Book of the Water Garden. New York: The Overlook Press.

Tanner, Ogden. 1979. Rock and Water Garden. Virginia: Time Life Books.



Wintertime in the School Garden

by Lisa Albert



The leaves have dropped and all seems quiet in the garden this time of year but there is still plenty to explore. Take a walk and have the kids see how many bird nests they can spot in bare tree branches. How many different types can they find? Who might have built the nests? Do the nests tend to be in certain areas, certain trees more often than in others? Where in the trees are the nests? Meet requirements for Scientific Inquiry benchmarks by having the kids make hypotheses beforehand and then prove or disprove what the kids suspected.

Obtain a permit from the Oregon Dept of Fish & Wildlife and collect a nest or two. Make sure the nest is abandoned before collecting. Have the kids dissect the nest carefully using tweezers. How many different materials were used? What was used to line the nest? What was used to shape the outside? Turn this into a math exercise; categorize the materials by weight, volume, type or other criteria and have the students make a graph or pie chart to illustrate their findings.

Unless you need to prune out damaged or diseased branches, leave pruning until spring to avoid disturbing over-wintering butterflies. To find out which butterflies you might find hibernating in your school garden, try this website: <http://www.npwrc.usgs.gov/resource/distr/lepid/bflyusa/chklist/states/or.htm>

Get Ready - Propagating Native Plants By Winter Cuttings

by Wally Hansen of Northwest Native Plants Nursery in Salem

Some evergreen trees and shrubs can be propagated by winter cuttings. Why not try winter cuttings for this winter's gardening project? For example, you might try Kinnikinnik and Yew and Blueblossom Evergreen Lilac. Take the cuttings with leaves or needles on top, and stems 3 to 8". Dip in rooting hormone powder and stick in flats containing a mixture of peat moss and plenty of fine pumice. Place in a protected area that has some heat and sunlight. Keep damp but not saturated. Be patient – when you gently tug on a cutting and it does not move, the root is starting to form. When roots have formed, start feeding the plant with a weak liquid fertilizer (every week.) Grow the plants until bushy roots have formed, probably well into Spring. Then the plants can be transplanted into larger pots or directly into the outdoor garden. Do not rush moving the tender plants from a cozy greenhouse or window sill into the outdoors, with cold nights. Think of these new plants as “new babies.”

Deciduous shrubs should be handled differently. After all leaves are down and after a first frost, take your cuttings, usually about 6 inches and pencil thin. Keep damp and dip in rooting compound. Now we want a callus to form at the root end of the cutting. Tie the cuttings in bundles, wrapped in plastic (except the bottoms with the rooting hormone dip) vertically in a large plastic box with damp peat moss in the bottom. Bury the closed box into the ground with about six inches of soil over the top. Get these in before Christmas. Then you must start peeking in early Feb. When a callus forms on the bottom of the cutting and the new buds are swelling, remove from underground and stick in flats, following the process outlined above for evergreen cuttings. Why not try Salmonberry, Twinberry, Nine Bark and most anything you can find? This is more an art than science so be patient, use your gardener's sixth sense and keep trying.



RESOURCES

Book Recommendations for Habitat Signage

Susan Powers, 4-H Wildlife Steward at William Walker Elementary School in Beaverton (Washington County) has been researching interactive signage for their wildlife habitat. She has found two publications to share. One is Beverly Serrell's book called Making Exhibit Labels: a Step-by-Step Guide. This book describes how to make text engaging through the use of different letter sizes and fonts. The second book is from the University of Wisconsin at Stevens Point. Signs, Trails and Wayside Exhibits describes different types of outdoor signs, materials to use and structures to build.

Master Recycler Program has Videos Available

4-H Wildlife Stewards and Member Schools can contact Megan Cogswell in the Multnomah County Extension office to borrow three new videos on reducing, reusing, and recycling waste materials. Each tape is approximately 15 minutes long. One video focuses on manufacturers, the second addresses office waste (paper waste in particular) and the third tape is a motivational tape titled "Why Should I Bother?" Megan can be reached at 503-725-2035.



Wildlife Websites 4-H Wildlife Stewards

- www.enature.com -enter in your zipcode and get a field guide to the animals in your neighborhood
- www.kidsgardening.com
- www.greenscreen.org
- www.butterflies.com - the butterfly zone
- www.nwf.org/animaltracks - animal tracks
- www.lads.com/basicallybats/ - bats
- www.greenteacher.com - for teachers , not kids but has links
- www.learner.org/jnorth - migration
- www.audobon.org/educate/ - Audobon Society (birds)
- www.nwf.org/earthsavers/ - a club for school kids
- <http://www.wbu.com/edu/jrnat.htm> Wild Birds Unlimited junior naturalist program
- <http://www.oregonzoo.org/kidsZone/> - zoo kids website
- <http://www.nwf.org/rangerrick/> -Ranger Rick Magazine
- <http://www.urbanext.uiuc.edu/worms/index.html> - worms
- <http://www.wa.gov/wdfw/wlm/region1/herps.htm> - herps
- <http://bugbios.com> -bugs
- <http://birding.miningco.com/msub12> - backyard birds, houses, feeders
- www.batcon.org - Bat Conservation

Mary Arnold, 4-H Wildlife Stewards State Project Evaluator spends time discussing the Seth Lewelling school habitat with a student



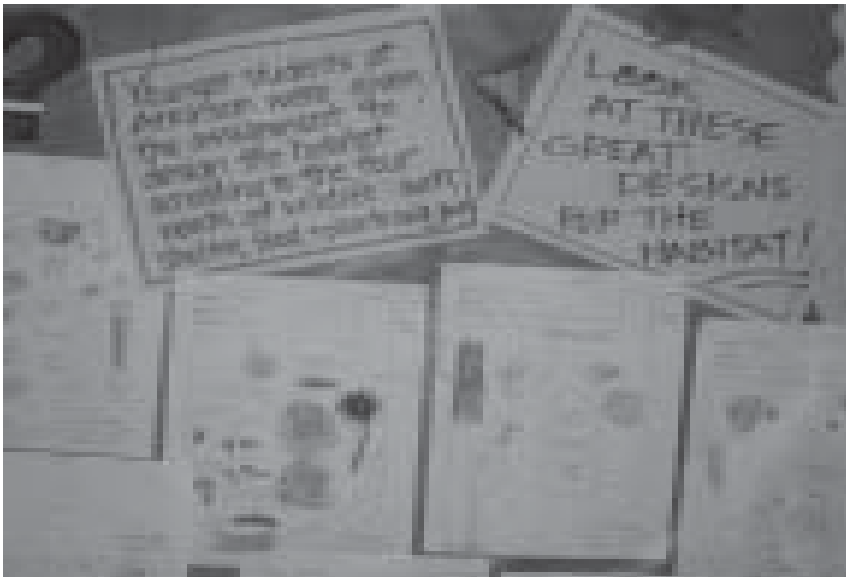
NEW Poison Control Phone #

Peggy Peirson, Emergency Services Coordinator for Benton County Emergency Management shares this important update with us. The American Association of Poison Control Centers has established a single telephone number for anyone to use to reach his or her local poison control center. The new telephone number is 1-800-222-1222. A computer will automatically read the first three digits of the caller's telephone number and connect the caller with the local poison control center. More information is available through their website <http://>

OSU Extension's Oregon Forestry Education Program is now the Sponsor of Project Wild

The OSU Extension Oregon Forestry Education Program is now officially the Oregon sponsor of Project WILD! (Shouts of jubilation!). Copies of the basic K-12 Project WILD manual and 150 copies of the Project WILD Aquatic manual should arrive here at Oregon Forestry Education Program Central on campus at Oregon State University. Now all we need are some dedicated "official WILD facilitators" to help teachers get the materials.

Are you interested? If you are a Project Learning Tree facilitator who has given at least two workshops in your PLT career with OFEP you can become a WILD facilitator at a one-day workshop. More information on future facilitator trainings will be announced in the next newsletter.



The 4-H Wildlife Stewards Bulletin Board at Atkinson Elementary School

GRANTS

Attention all High School 4-H Wildlife Stewards School Students OSU College of Agricultural Sciences Has A Wealth of Scholarships

4-H members can continue their personal growth with scholarship assistance from the OSU College of Agricultural Sciences. CAS, and its departments award nearly a half-million dollars in scholarship funds to CAS students. Many 4-H members are well qualified for some of this financial assistance.

The college's generous financial support, comprehensive academic programs, individual attention, and interdisciplinary approach equips students with the educational resources they need to meet academic and career goals.

Through the Agricultural Honors Scholarship Program, CAS awards about \$55,000 to incoming freshmen and transfer students each year. Scholarships range from \$1,000-\$2,000. Students receiving scholarships are also eligible to apply for a \$1,500 Continuing Venture Agricultural Honors Scholarship for their second year of study with the college.

The fields of agriculture and natural resources are rapidly expanding, with countless exciting and high tech jobs emerging everyday. Degree programs within the College of Agricultural Sciences lead to careers in veterinary medicine, environmental law, marketing, fisheries and wildlife, biotechnology, fermentation science, public relations, and landscape design-to name just a few.

The Power of Dreams™: Going Places, Making Choices COMMUNITY SERVICE PROJECTS

The Environmental Stewardship Program at National 4-H Council with support from American Honda Motor Company would like to announce the availability of three (3) \$2,500 grants to complete a student community service project based on the curriculum "Going Places, Making Choices: Transportation and the Environment" (GPMC). Examples of community service projects are based on information from Unit Five of the curriculum, "A Matter of Choice: Taking Action". Sample community service projects include, but are not limited to, designing an emissions-reduction program; working with your schools to improve bike facilities; and helping plant shrubs and other flora in your local communities. Activity 5b in Unit Five of the curriculum provides guidance on completing such a project. The GPMC curriculum can be accessed on the web at <http://www.4hgpmc.com>. It is important that proposals indicate how the project relates to the curriculum, "Going Places, Making Choices".

These grants will provide opportunities for young people and educators to take action on timely transportation and global climate change issues addressed in "Going Places, Making Choices: Transportation and the Environment". Youth will take the lead in the design of the project, the proposal writing process, the implementation, and the evaluation of funded projects. The objectives of these grants are:

- to increase community awareness of local and global environmental issues related to transportation and land use, global climate change, natural resource and energy use, personal values and choices,



- to enable students to expand upon their classroom learning by taking action in the “real world” based on the curriculum, and
- to offer students the opportunity to design a project, partner in the proposal writing process, and to implement and evaluate the project.

Grant proposals will be reviewed by a team of judges based on guidelines are available through your local 4-H office.

The 2002 Toyota TAPESTRY Program

The 2002 Toyota TAPESTRY program will award 50 grants of up to \$10,000.00 each and a minimum of 20 “mini-grants” of \$2,500 each to K-12 science teachers. Interested teachers should propose an innovative science project that can be implemented in their school or school district over a one-year period. Toyota TAPESTRY projects demonstrate creativity, involve risk-taking, possess a visionary quality and model a novel way of presenting science. If you have a great way to make science come alive, apply for a Toyota TAPESTRY grant.

There are several ways you can apply for a Toyota TAPESTRY grant:

1. Download the application brochure and proposal form online in Adobe Acrobat format
2. Call the Fax on Demand service at 1-888-400-6782 and request document number 591
3. Send a request for application materials :

Design and plan a one-year long project that centers on either environmental science education, physical science applications (applied physics, chemistry, and technology, or science and literacy. Projects should demonstrate creativity, involve risk-taking, possess a visionary quality, and model a novel way of presenting science. Projects should involve hands-on activities, have an interdisciplinary approach and

relate science to students’ lives. Write a proposal according to the TAPESTRY rules.

Required proposal components include:

- Proposal Application Form (signed by Project Director and principal)
- Summary (one double –spaced page)
- Description (two double-spaced pages)
- Rationale (one double –spaced page)
- Potential Impact (one double-spaced page)
- Evaluation Plan (one double-spaced page)
- Project Calendar (one single or double-spaced page)
- Budget (one single or double-spaced page)
- Vitaes (one page per team member)
- Letters of support (one page each, one from principal)

Required proposal components for mini-grants include:

- Proposal Application Form (signed by Project Director and principal)
- Summary (one double-spaced page)
- Description (two double-spaced pages)
- Budget (one single or double –spaced page)
- Letter of Support from Principal (one page)

Mail two copies of the proposal complete with all components plus 12 additional copies of the proposal summary and any inquiries to:
 NSTA/Toyota TAPESTRY
 1840 Wilson Blvd.
 Arlington, VA 22201-3000

Entries must be received by January 17, 2002!
 Late or faxed entries will NOT be accepted!

<http://www.nsta.org/programs/tapestryhowtoapply.asp>

4-H Junior Wildlife Stewards Camp

Scheduled for August 5-9

Mark your calendars now for the next 4-H Junior Wildlife Stewards Camp scheduled for August 5-9th. The camp will be held at the 4-H Education Center in Northwest Salem.

The camp is **open to boys and girls** completing grades 3-6 in 2001. The camp is designed for youth who wish to explore the wonders of nature in an outdoor setting. The focus of the 4-H Junior Wildlife Stewards Camp is on wildlife, fishing, and learning about the environment. Previous experience or knowledge in these areas is not required—**4-H and National Wildlife Federation welcome novices who want to learn and have fun in the process.**

Trained staff from OSU Extension 4-H and National Wildlife Federation will provide guidance in the basics of fishing and aquatic habitats, wildlife tracking, nature photography, nature crafts, sunrise wildlife walks, bird watching, forestry, canoeing, evening campfire programs, and more. Campers will take on new responsibilities and learn new skills as members of the camp community. A special highlight for the entire camp community will be a hands-on **wildlife restoration project.**

