



Let's Go GREEN!
19th Annual Student GREEN Congress
South Sound GREEN and Nisqually River Education Project
March 17, 2011
Workshop Menu – Student Choices

50 Minute Workshops (Students attend two)

Cast Away! *Judy Graham, Washington Casting for Recovery*-- Fly-fishermen have always been advocates for healthy streams and rivers. Fly-casting is both an art and a skill. The most successful of fly-fishers are students of salmon behavior who know what they like to eat! Learn how to fly-cast and find out how fly-fishing differs from other types of fishing. **(Limited to 10 students per session, grade 6 and above; dress for weather.)**

Countin' Critters: Benthic Macroinvertebrate Monitoring, *Ann Marie Finan, Thurston County Stream Team; Mindy Allen, Aquatic Entomology; Ashley Von Essen, Nisqually River Education Project*-- Examine a live sample of aquatic insects and other 'bottom dwellers' to learn how to identify 'benthic macroinvertebrates'. Find out how these critters manage to eat and breathe in order to survive living in their swift watery world.

Creating Cool Stuff from Our Natural Environment, Again and Again! *Dave King, Eco Woodworks*-- See how you can create items for everyday use from wood resources found in the forest or your own back yard. Learn about different kinds of trees and how each can be used to make something special. Craft your own customized coat hooks from local and sustainable wood!

Do You See What I See? *Erica Baker, Educational Consultant*-- Come and learn about *biodiversity*: what it is, why it's important and how scientists study it in the real world. Then you'll head outside and use GPS units and other tools while exploring the college campus – looking for plants and wildlife. After collecting data, you'll see how to create a map on the computer that shows your discoveries. It will be a fun adventure both indoors and outdoors! **(Partly outside- dress for the weather.)**

Eco-Leader Team, *Ann Butler, People for Puget Sound; Cindy James, Department of Ecology*-- Are you the type who wants to see good ideas turned into action? Want to create a project to make a difference in your watershed and community? Take this workshop to work with community leaders in salmon and habitat restoration to craft the recommendations from the morning's State of the Rivers Sessions into a Watershed Action Declaration and potentially, an action project! **(Available only with teacher recommendation.)**

Environmental Percussion: Drumming from Nature, *Jay Sicilia, Planet Percussion Band*-- Create scintillating rhythms using recycled materials or products. Then try your hand on a variety of exciting percussion instruments led by a local percussionist and director of the Planet Percussion Band. Play Earth rhythms with roots in world music and drumming.

Get Out of My Hair: Toxins in Personal Care, *Jennifer Johnson, Thurston County Public Health and Social Services, Environmental Health*-- Teens are a primary target for sale of personal care products – yet some ingredients used to make cosmetics, lotion, deodorant, shampoo, and hair dye have been linked to cancer and may cause reproductive and

environmental harm. Join us for a 50 minute presentation on toxins in personal care products and alternatives teens can choose to protect themselves. We'll learn about health concerns, how to read labels, helpful web sites, and safer alternatives. The students will make an all-natural lip balm to take home, to remind them they can keep looking and smelling good without toxic products! **(6th grade and up)**

The Inside Story: A Salmon Dissection, *Joe Jaquet, Salmon Biologist; Dan Spencer, U. S. Fish and Wildlife*-- Ever wonder why a fish doesn't sink? How can a gill extract dissolved oxygen from water? Explore the innards of an *Oncorhynchus tshawytscha* (Chinook salmon) while helping experts to dissect a 15-pound salmon. Rubber gloves will be provided.

Kéet Latseen: Killer Whales from Native and Western Perspectives, *Orca Annie (Ann) Stater and Odin Lonning, Vashon Hydrophone Project (VHP)*-- Puget Sound's orcas are facing extinction. Drawing from Tlingit tradition, Native science and the natural history of orcas, this workshop will reveal the killer whale's spiritual and ecological significance in the Pacific Northwest. Through photographic, observational, and acoustic data, Vashon Hydrophone Project (VHP) associates have documented whale encounters in Vashon Island waters for decades. This program features spectacular slides of whales in Puget Sound by researcher Mark Sears, a VHP associate. Learn about the threats to our cherished killer whales and specific ways to protect them. Examine the value of traditional ecological knowledge (TEK) in mainstream conservation.

LOTT's Tiniest Workers – Water Bears and More, *Susie Vanderburg, LOTT Wastewater Environmental Educator*-- Explore the microscopic world of organisms that help LOTT clean up wastewater. After a brief presentation on how LOTT uses micro-organisms in the treatment process, students will put on lab coats and gloves and prepare their own slides for viewing under microscopes. Be the first to discover a slow-moving "water bear" and learn its anatomy. See amazing rotifers and stalked ciliates as they search for food in the hidden world of the microscope! **(7th grade and up)**

Puget Sound, Our Home; A Treasure in Trouble, *Evan Barnett and Gabrielle Byrne, People for Puget Sound*-- Puget Sound is right in our backyards and provides us with natural beauty as well as recreation and contributes millions of dollars to our local economy. But most people don't realize that Puget Sound is sick. This workshop will teach you all about some of the threats to Puget Sound and what you can do to help.

Raptors in the Watershed! *Brad Wood, Northwoods Limited*-- Residing at the top of the food web, raptors including hawks, falcons and eagles are vital indicators of a healthy watershed. Learn about these unique birds through talons-on activities including observations of live Gyrfalcons and Harris Hawks.

Scrumptious Shellfish Shucking and Sampling, *Jennifer Hopper, Taylor Shellfish Farm*-- See and touch live shellfish! Have you ever touched oyster gills or held a geoduck? Learn about the shellfish that are farmed here in Puget Sound and learn how to cook (and eat) these delicious bivalves! **(**Must have a signed note/waiver saying "my child is not allergic to shellfish".)**

A S.P.A.C.E. Odyssey, *Randy Stearnes, Tacoma Power*-- Energy is in the news and during this session students will travel on a journey to Study Power and Conserve Energy. Participants will investigate hydropower and learn how to use water to generate electricity. Students will explore being responsible with important resources, namely water and electricity. **(Recommended for grades 4-8.)**

They Came from the Intertidal Zone! *Daniel Hull, Nisqually Reach Nature Center*-- Just who exactly are they and where do they live? Find out how these amazing organisms exist during both extremely high and low tides. Examine living marine plankton under microscopic magnification. Come and meet these critters of all shapes and sizes, as you actually touch some of these unique organisms!

Weaving from the Water, *Harvest Moon, Quinault Tribe*-- Make your own cattail headband in the style of the coastal Salish Native American peoples. Enjoy games and legends from the long house.

100 Minute Workshops (Students attend only one)

Building Backyard Bird Habitat, *Gary Monroe, Trout Unlimited and Margaret Lambert, Nisqually National Wildlife Refuge*-- Many birds rely on our backyards for habitat. Whether you have a life list as long as your leg or don't know a bufflehead from a buzzard, this workshop will explore the place birds hold in our community and watersheds. Build nest boxes for wrens and nuthatches to encourage the presence of wildlife in your own backyard. Then who will be the guest birds in your new birdhouse? Learn to identify some of the probable tenants by listening for their songs and calls. Go on a short birdwalk to find these potential guests. **(Partly outside--dress for the weather.)**

The Earth Is Our First Teacher: Working with Cedar Bark Rope, *Rebecca Chamberlain, Professor, The Evergreen State College*-- What can you learn from the natural world? Visit the campus weaving garden and learn the history of basket making and it's ties to our intellect and senses. Make your own 2-ply rope in a traditional Northwest tribal fashion using cedar bark.

Feathers in Your Watershed, *Mount Rainier: The Place and its People, The Evergreen State College Students*-- Who are some of the common birds that live in your watershed? What part do they play in the overall health of the ecosystem? In this indoor session you'll study, identify and learn to draw some of the everyday birds living near you. See real "live" stuffed birds! Bird skeletons! Play Binocular Bingo! See real bird nests!

Fun with Fungus, *Pat Rassmussen, Edible Forest Gardens*-- What fun is a fungus? Learn amazing facts about this Kingdom of Life! Dissect mushrooms to learn about their anatomy. Find out how oyster mushrooms clean toxins from contaminated water. We will make mycofilter patches by putting woodchips and mushroom mycelium in burlap bags. Later these bags will be put between a toxic source and a stream to clean water before it goes into the Puget Sound. **(Grades 5th-7th)**

Make Art Not Waste! *Diane Kurzyrna, aka Ruby Reusable, WSAC Roster of Teaching Artists*-- Honor the many ways people work to protect our environment, especially watersheds and water quality, while learning about the power of art and the importance of recycling. We will use ordinary materials that usually get discarded or recycled to create figures that represent the positive actions we can take to enhance environmental quality.

Modeling Your Watershed, *Ron Holtcamp, Trout Unlimited*-- Build a 3 dimensional model of a watershed using a topographic map. Students will transfer contour lines and enlarge the scale of the map to foam boards. Each foam board will be cut along the contour line and assembled to

create the 3-D representation. Plaster of paris like material will be mixed and poured over the assembled foam boards to form the surface. A final step will be painting the model with basic colors to depict forest, cultivated areas, urban areas, and water features. **(12 years old and up)**

Nature Journaling, *Carrie Ziegler, Earth Art*-- Making and keeping a Nature journal can be an enjoyable way to get tuned in to the outdoors. Combining the written word with drawings adds beauty, individuality, and dimension to the page. Construct a palm-sized journal using a book binding stitch. We will learn some basic drawing techniques along with some strategies for recording your experiences in nature. You will have the opportunity so see some examples of nature journals and try your skills by taking a short walk together on the Evergreen Campus. **(Recommended for 5th - 12th graders.)**

Probing Puget Sound, *Doug Myers, People for Puget Sound*-- Come learn what lives in the shallow waters along the Eld Inlet shoreline, why shorelines are important for the health of Puget Sound and what people are doing to make shorelines function better. Students will conduct beach seines, benthic cores and vegetation surveys to characterize the beach and learn how these research methods are employed by marine biologists restoring Puget Sound. **(Grades 6th-12th, Dress for Weather , Off-campus site: van transport provided.)**

Stream Sleuths, *Adam Sant, South Puget Sound Salmon Enhancement Group*-- Visit Beatty Creek in the Black Hills and sleuth out the stream's gravels, riparian zone, woody debris and streams banks. Our exploration will tell us whether this stream is a healthy home for salmon. In this workshop you will put on boots and gloves and get into the stream to do a size survey of pebbles in the substrate. **(Dress for Weather. Off-campus site: van transport provided.)**

Tree of Life, *Bob Barnes, Washington State Department of Transportation; Christine Donehower, People For Puget Sound*-- Come learn about and help plant the tree of life (Western Red Cedar) and other native species along the William Cannon Trail so current and future generations can enjoy this shoreline trail. Shovels and gloves will be provided. **(Dress for the weather: Off-campus site: van transport provided.)**

A Winter Walk in the Woods, *Linda Lee Tatro, Southworth Elementary School*-- Ever wonder what those twigs are that you pass in the winter? What about those small, leafy plants on the side of the trail- are they edible? This workshop is specifically for students who have a love of plants and gardening. **(Recommended for grades 4-8, dress for the weather.)**