



Rainy Day of Restoration

Heavy rain didn't stop hardy volunteers from coming out on April 16th to help restore Lakeridge Park and tour Deadhorse Canyon.

The event was hosted by Seattle Urban Nature Project (SUNP), Friends of Deadhorse Canyon (FDC), and Seattle Public Utilities.

A lush ravine, Deadhorse Canyon straddles Seattle's Rainier Beach and Skyway/West Hill neighborhoods. Deadhorse Canyon features a variety of plants native to the region, as well as hiking trails and a perennial stream (Taylor Creek). The Friends of Deadhorse Canyon (FDC) have worked with the local community for over 8 years to foster stewardship of the Canyon. **See Page 2.**

Native Plants of Seattle



*Western Columbine (Aquilegia formosa)
in Madrona Park.*

How do you Manage an Urban Forest?

Managing a forest in the midst of an urban landscape can seem like a daunting task. The development of any natural system is driven by a variety of variables, such as competition from other plants, water availability, and soil type. An urban forest poses additional management challenges, as it is also subject to human impacts.

Human disturbances such as past logging events, stream manipulation, illegal dumping and even general trampling can combine to substantially alter these otherwise naturally functioning systems. Add the introduction of invasive plant species to the mix and you get the fragile, declining forests we see today clinging to the valleys and hill-slopes of Seattle. It is the aim of groups who participate in forest restoration to break this ongoing cycle of degradation and to tip the scale back towards a "more natural" system, one that is able to support a rich and diverse array of native plants and animals.

One group that has been working towards that goal for the last 8 years is Friends of Deadhorse Canyon (FDC). During their first few years, FDC focused on one key element they determined to be lacking from the current system: conifer regeneration. So what prompted FDC to plant conifer seedlings? A closer look at the current structure of Deadhorse Canyon can give us a clue. The scattered giants towering above as you meander along the path beside Taylor Creek begin to tell the story. **See Page 5.**

SUNP Initiates New Citywide Monitoring Project

SUNP is implementing a new citywide monitoring project, focusing on forested uplands. The assessment is a natural progression from the original collection of citywide data SUNP accomplished in 1999-2000. In this case, SUNP staff will be focusing on selected plots in "habitats of interest." throughout the city. Our desire is to use a methodology that will be repeatable over time, by SUNP or other entities interested in the health of the city's forestlands.

Four key variables will be collected for each plot. The variables selected include: cover of all plant species, density and size class of trees, & density and size class of coarse woody debris and snags, and are based on accepted indicators of forest health.

SUNP will be surveying approximately 80 plots this summer. The information gained from this effort will be published in a "State of Seattle's Habitats" summary document.



*A Western red cedar in
Deadhorse Canyon provides
important forest structure
and wildlife habitat.*

Rainy Day of Restoration (from page 1)

In 2004, The Friends of Deadhorse Canyon and Seattle Urban Nature Project received a grant from the Natural Resources Stewardship Network to survey the current state of vegetation in the Park and develop management recommendations. The project was made possible through funds from King County, the Washington Department of Natural Resources, and the United States Forest Service.



The invasive weed herb Robert (*Geranium robertianum*) gives off a pungent odor when disturbed.

Torrential rain greeted the volunteers who began arriving at 8:30 a.m. Thankfully, FDC, Seattle Public Utilities and Pacific Science Center provided canopies where volunteers could drink coffee or hot chocolate and learn about the activities taking place in Deadhorse Canyon.

After a pep talk by FDC leader Darrell Dobson, volunteers were organized into work groups and the weed-pulling commenced. Volunteers were able to clear out a sizable patch of herb Robert in under two hours.

After the work phase of the day was completed, Darrell Dobson of FDC and Nelson Salisbury, SUNP Field Ecologist provided tours of Deadhorse Canyon. Participants learned about 1) the natural history and ecology of the canyon, 2) FDC's efforts to improve the park and 3) the current collaboration between Seattle Urban Nature Project and Friends of Deadhorse Canyon.

In addition to tours and invasive species removal, the Taylor Creek Interns from Pacific Science Center provided information on water quality monitoring and benthic macroinvertebrates (aquatic insects) to the public. As the volunteers worked in the morning, the interns gathered samples from Taylor Creek and set up a station to show their findings as the tours began.

All-in-all it was a successful day, as people were able to meet and greet others who cared about the canyon and learn a little bit more about nature in their own backyard.

Friends of Deadhorse Canyon coordinators, Darrell Dobson and Jude Siefker staff the sign-in table at the April 16th event. Photo by Larry Montgomery, South Seattle Star.



Join our Deadhorse Canyon Meeting in August

In August, SUNP and Friends of Deadhorse Canyon will be holding an informational meeting open to the public to discuss the state of Deadhorse Canyon. Topics will include history of the canyon, past restoration efforts, current assessment of the vegetation, and future restoration plans. Informational materials will be available to the public, including new park brochures and maps. Refreshments will be served. Stay tuned for more details!



FDC Volunteer Irana Hawkins and Jeff Bash of SUNP remove invasive species along the road in Deadhorse Canyon. Photo courtesy of Larry Montgomery, South Seattle Star.

Interested in a Habitat Map of your part of Seattle? SUNP Maps cover the entire City of Seattle.

For additional details, contact us at (206) 522-0334 or download a form to order individual maps at www.seattleurbannature.org

Deadhorse Canyon Work Party and Tour—Photo Gallery



Eric Espenhorst of FDC giving lessons in weed management. Photo courtesy of Larry Montgomery, South Seattle Star.



Taylor Creek Interns testing water quality with Susanna Stoddard of Pacific Science Center.



Nelson Salisbury (far right), SUNP Field Ecologist, leads tour of Deadhorse Canyon for restoration volunteers.



Taylor Creek, one of the major streams in the City of Seattle, swollen with spring rains.

SUNP part of Seattle Green Map Project

SUNP is currently working with a number of local organizations to create a Green Map for the City of Seattle. Green Maps identify community resources, marking environmental, social, cultural, and economic sites of significance in a city, with a focus on sustainability. SUNP's main responsibility is to identify areas with significant native and invasive plant populations.

Other groups involved with the project include Sustainable Seattle, Feet First, Homewaters Project, BALLE Seattle, Johnson Design Studio/Design Resource Institute, People for Puget Sound, the Transportation Choices Coalition and the Seattle Office of Sustainability and Environment.

Green Maps have been created for over 250 cities around the world. The Seattle Green Map Project kicked off in February 2005. Hundreds of sites have been

nominated for placement on the map. Once completed, the map will serve as a guide to a wide variety of green resources in Seattle. On June 2nd, the first iteration of the Seattle Green Map will be launched at Seattle City Hall.

For more information, check out the Seattle Green Map Project website at:

<http://www.seattlegreenmap.net>



Brooke Tseng, SUNP Intern

Brooke Tseng is SUNP's new outreach intern. She joined the staff in March 2005 and has been working on a variety of outreach projects including the newsletter, brochures, and event organization.

Brooke earned her B.S. at Ball State University in Muncie, Indiana, where she majored in environmental communications. She has worked with Indiana Public Television, the Palouse-Clearwater Environmental Institute and Rural Roots, a non-profit sustainable agriculture organization. Her interests lie in creating a bridge between environmental organizations and the general public.



SUNP provides maps for Earthcorps and City of Seattle



Map designed by SUNP to help Earthcorps and City of Seattle plan trail maintenance in Interlaken Park.

This spring, SUNP partnered with Earthcorps and the City of Seattle Parks Department to create a trail map of Interlaken Park. Trail erosion problem for park managers.

Earthcorps gathered trail information using GPS (Global Positioning System) technology. SUNP edited this data and displayed the information on a map using GIS (Geographic Information Systems).

Earthcorps and the City will use the map to guide trail restoration and maintenance within the park.

SUNP Wants You—for the Board

Seattle Urban Nature Project is expanding its board. Some areas of experience that we are looking for include:

- Accounting
- Database Management
- Communications
- Fundraising
- Graphic Design
- Marketing
- Wildlife Biology

Please contact Jeff Bash, Executive Director at (206) 522-0334 or jeff@seattleurbannature.org if you are interested in joining the SUNP Board.

SUNP Launching New Website in June

Stay tuned for big changes to our website:

www.seattleurbannature.org

The new site will feature information on SUNP services, projects, and maps for sale from the 1999-2000 survey. In addition, you will find resources for urban restoration, including links to other sites.

SUNP Services

SUNP offers a number of services to assist public, private, and non-profit organizations.

Ecological Services

- Habitat Mapping and Assessment
- Vegetation Inventory and Management
- Restoration Planning and Monitoring
- Vegetation Monitoring

GIS Services

- Custom Mapping of Project Sites
- Mapping for Grant Reporting Purposes
- Spatial Analysis
- GPS Data Collection

Training and Education

- Habitat Survey and Assessment Methods
- Monitoring Restoration Sites
- GPS and GIS Training
- Plant Identification
- Habitat Restoration Techniques

Please contact us at (206) 522-0334 for more information.

How do you manage an urban forest? (from page 1)

Deadhorse Canyon used to be the home to many large conifers, including western red cedar, western hemlock and Douglas fir. Hidden among the dense underbrush in the park are enormous decaying conifer stumps. Timber harvesting altered the cycle of natural conifer regeneration in Deadhorse Canyon.

The absence of conifer trees set into motion a dramatic chain of events; the most immediate was the establishment of deciduous trees with only 80 to 100 year life spans, substantially less than their conifer counterparts. This resulted in full canopy exposure during the winter wet season, leading to an environment highly susceptible to the establishment of certain pernicious weeds. Jump ahead to the present and we see many areas of the upland forest dominated by stands of declining deciduous trees with little ready to replace them when they fall.

When Friends of Deadhorse Canyon arrived on the scene in 1996, Deadhorse Canyon was a narrow, forgotten strip of trees occupying a short ravine adjacent to Lake Washington. FDC's concern for the state of the canyon led them to adopt a proactive campaign to restore conifers to the ravine. With the advice of city park officials, FDC began to plant conifer trees, mostly western red cedar, and to remove invasive species from the park.

Current State of Deadhorse Canyon

During a survey completed by SUNP in the spring of 2005, the most common and widespread non-native species found in the park were English ivy (28%), Himalayan blackberry (10%), and English holly (5%), all bird-dispersed evergreen vines and shrubs that are able to proliferate throughout the year. Percentages represent average cover from 37 sampling plots (each plot = 1/10 acre). When compared to other plant species in the park, these species ranked 3rd, 7th, and 11th respectively in total cover of all species park wide. Only Bigleaf maple and Sword fern had more average cover in our plots than ivy.

Another forest attribute that SUNP measured during the inventory of Deadhorse Canyon was the density and

size class of trees found throughout the park. What we found were relatively low densities of mature conifer trees contrasted with high numbers of small diameter seedlings (see Figure 1), the majority of which were planted by FDC. The restoration efforts of FDC are apparent today and may markedly impact the structure of the canyon as the trees mature. It is hoped that over time, these actions will contribute to maintaining wildlife habitat for species such as bald eagles and pileated woodpeckers.

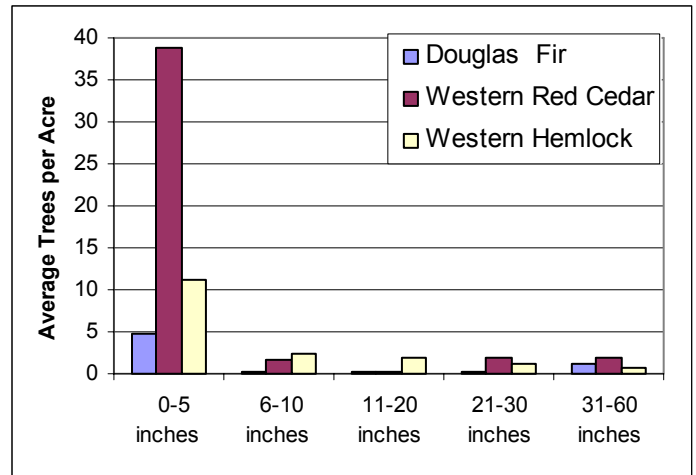


Figure 1. Average density per acre of native conifer trees (Douglas fir, western red cedar, and western hemlock) within five size classes found in Deadhorse Canyon based on sampling between 11/16/04 and 2/24/05 (N=37).

Many questions remain to be answered. Have enough trees been planted, and how many will survive to maturity? Can the influx of invasive plant species be sufficiently suppressed?

How much continued effort will be required to achieve these goals? SUNP has set out to track some of these questions with the hope that our efforts can provide the foundation for continued stewardship of Deadhorse Canyon, and to help guide forest restoration practices throughout the city.

For more information, contact SUNP ecologist Nelson Salisbury at nelson@seattleurbannature.org.

SUNP helps People for Puget Sound battle against Spartina

Spartina is an invasive cordgrass found throughout Puget Sound and coastal Washington. People for Puget Sound (PPS) is committed to controlling its spread. SUNP will help PPS achieve this aim by training habitat restoration staff in the use of Global Positioning System (GPS) equipment and producing management maps from the data collected.

Right: *Spartina* in Willapa Bay, Southwest Washington



SUNP Calendar

June 17

SUNP Board Meeting
University Heights Center
9:00-11:00 AM

July 11

City of Seattle Neighborhood
Grants Due

July 22

SUNP Board Meeting
University Heights Center
9:00-11:00 AM

August (date to be announced)

Deadhorse Canyon Informational
Meeting

SUNP Working Vision

**Empower people to improve
urban habitats through
science-based information
and methods.**

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Help SUNP Achieve its Mission

Consider contributing to the Seattle Urban Nature Project. It's tax deductible.

A contribution to the Seattle Urban Nature Project empowers people to improve urban habitats through science-based information and methods. With your donation, you will receive a quarterly newsletter highlighting SUNP's activities. For a donation of \$100 or greater, you may receive a 2' x 3' SUNP map of your choice from our catalog. We will send you an acknowledgement of the gift for your tax records.



**Yes, I would like to help the Seattle Urban Nature Project to empower people to improve urban habitats through science-based information and methods.
Here is my donation.**

_____ \$100 _____ \$75 _____ \$50
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Please make your check out to Seattle Urban Nature Project

And mail to:

**Seattle Urban Nature Project
5218 University Way NE
Seattle, WA 98105**

THANKS FOR YOUR SUPPORT!

Comments, questions, or submissions? Please contact Jeff Bash, Executive Director at via e-mail at jeff@seattleurbannature.org. If you would like to receive this newsletter in a different format or would like to be removed from the mailing list, please let us know. Learn more about SUNP at www.seattleurbannature.org.

Seattle
Urban
Nature
Project



*mapping our
ecological future*

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