

Spyder Hoe places boulders to form spawning pools. This year's restoration work in Douglas Creek was the best yet!

#### In This Issue

- Douglas Creek Watershed Campaign
- New Interpretive Signs
- Tree Appreciation Day
- Doggy-do
- Invasive Species Group

- Salmon Transplants
- Douglas Creek Habitat Restoration
- Research in the Park
- Churchill Drive Walkers
- 20<sup>th</sup> Anniversary as a Saanich Park

### Saanich Environmental Services Watershed Campaign

The District of Saanich and the Friends of Mount Douglas Park are wrapping up a year-long educational campaign to raise awareness in the Douglas Creek watershed focusing on how individuals can have a positive impact on water quality and habitat. Here is a look at what was accomplished:

 Published an edition of *Our Backyard* devoted to the Douglas Creek Watershed (4700 copies delivered). This excellent special edition is available online:



http://saanich.ca/living/environment/pdf/ob/OurbackyardSpring2011Finalweb.pdf

- A special Douglas Creek Watershed display was at Gordon Head Recreation Centre. at Saanich Municipal Hall and the at Conservation Connection.
- Held a rain garden workshop.
- Installed two new signs:
  - An interpretive sign at one of the Shelbourne rain gardens.
  - An "Entering Douglas Creek Watershed" information sign.
- Added web articles:



Darren Copley, Tricia deMacedo & Adriane Pollard Saanich Environmental Services

- http://saanich.ca/living/natural/envnews.html
- http://saanich.ca/living/natural/stormwater.html
- Co-sponsored the Rivers Day event at Mount Douglas Park.

We are very pleased with the results of the campaign and we hope that the community will continue to appreciate and learn about the watershed they live in. Good luck to the Friends of Mount Douglas Park as they carry on with restoring and promoting Mount Douglas creek.



Rivers Day in Mount Douglas Park



Rivers Day participants had a live demonstration of a storm-water surge. The before/after photos show changes over roughly 10-15 minutes!

# **New Interpretive Signs**

Prototype interpretive signs have been installed along the Douglas Creek trail between Ash Road and the beach parking lot. The signs will provide information about the Park's native plants, invasive plants, birds, animals and fish. A new feature is the "QR-code". If you have a smart phone, there is an "app" that will scan and interpret these codes.

The QR-code on these Mount Douglas Park interpretive signs provide additional information. For example, with bird interpretive signs, it allows one to hear the bird call or vocalization (Try scanning the QR-code on the Pileated Woodpecker sign below.)

The sign itself is intentionally designed with basic, but limited information. The QR-code provides a URL connection to a related web site with more detailed information.

Not only does this provide information beyond what would be practical or even possible on a physical sign (e.g. animal sounds), but in comparison to the physical sign, the web page can easily be updated

These signs are a prototype experiment and not yet polished and the web pages need to be optimized for smart phone access. Never-the-less, we would appreciate feedback with your impressions or suggestions on the concept.

## **Pileated Woodpecker**

They chip out large and roughly rectangular holes in trees while searching for insects.

The nest hole is round and only used once. When abandoned, these holes provide good homes for owls and other birds.

Look for holes in wildlife trees; listen for their call or chipping sound.







## **Tree Appreciation Day**



Over 100 volunteers planted more than 2200 trees and shrubs.



Small now, but carefully planted and it will grow to protect the creek bank and provide shade.

Tree Appreciation Day 2011 is only a one-day event – that is for the volunteer planters. But the preparation starts a year in advance with lots of very appreciated help:

- Seeds for the plants were gathered in the Park between August and October of 2010.
- Rob Hagel at the Pacific Forestry Centre stratified, sowed, transplanted into styrofoam blocks, watered and fertilized the seeds and young plants.
- styrofoam The blocks containing the 1100 shrubs were delivered for the event.
- In parallel, Saanich provided an additional 1125 native shrubs and ferns.
- Significant Tree The Committee organized coffee snacks from Thrifty and Foods.



Surveying the results, this year's event was the most successful yet, and goes credit to Saanich Parks for superb the organization. We had more volunteers and the actual planting showed the better organization. Early that morning, Parks employees carefully placed the plants where they were to be planted that the so "only" volunteers (those that found



Saanich crews used ropes to plant the steeper creek slopes.

hard gravel understand the "only" quotes!) needed to dig the hole and place the plant. This resulted in a much better distribution and density of plants; as one volunteer observed ("guess I won't be walking here anymore!").

### Doggy-do

We hear a lot of comments, both positive and not so positive, about dogs in the Park. Here are a few of those comments:

- "It's really great to walk or run my dog."
- Many other very positive comments attesting to the health and pleasure of dog walking.
- Dog poop and irresponsible owners: Worst are those that bag it, then throw the bag in the bushes; Or those that bag it, but leave it. Or those that simply ignore it (leaving it for the invasives pullers to step in).
- Children and dogs: It seems the younger, nicest, friendliest, full of energy, off-leash dogs terrify young children when they bounce up to them, wanting to lick their faces.



### **Invasive Species Group**

The work of the invasive species group is another Park success story; there is real progress to report. Many park visitors, as they walk up the lower parts of Churchill enjoying the rejuvenating native plants along the road, have no idea what the invasive infestation looked like not too long ago. Along Churchill, and in many other areas of the Park that have been successfully cleared, the work will always continue, but it has changed from an invasive-dominated landscape to natural plants with only a few invasives attempting a come back.



Another weekend, more invasives to pull

#### The successes:

- Garlic Mustard has been significantly reduced from 2007. In 2008 170 garbage bags were filled with 600 hours of volunteer time. In 2011 and 47 hours, only 2 garbage bags were filled.
- English Ivy and English Holly vast amounts were removed along the lower half of Churchill and near the Glendenning, Maddock, and Norn Trails. Perhaps you saw the huge piles along the road?
- Summit Scotch Broom In cooperation with Saanich, masses of broom were removed (see before/after photo) during three broom bashes. Here, there is a bit of a dilemma. The



cleared areas hold a great many native flower bulbs and lovely mosses, but until they make a come back, the area looks bare and many visitors leave the summit trail, compacting the soil and trampling the struggling young plants.



Judy Spearing shows how to pull Scotch Broom



Another pile of invasive plants successfully removed from the Park.

There is a group pulling invasive plants at least one weekday each week with several weekend events during the year. See the calendar of events on our web site for specific dates.



Before/After: Broom on the left / initial return of native plants on the right. But the "problem" with the invasive group's successes, is that when they finish, it just looks natural. Without a before/after photo such as this, it's difficult to appreciate the significant contribution to the Park that they are making!

#### **Special Coho Transplant**

No doubt you remember the terrible gasoline spill into Goldstream. Their Coho smolts were ready to migrate into salt water, a transformation that can't be delayed, it's salt water or die. Fortunately we have had a long-term relationship with the Howard English Hatchery at Goldstream, so their manager, Peter McCully, brought us 300 Coho smolts for release into Douglas Creek. We are not sure if they will imprint on the Creek or return to Goldstream, but either way, the loss of these valuable smolts was avoided.

On a brighter note, we are ready to release the fall Coho fry when the hatchery deems that they are ready. They will stay in Douglas Creek until May when they leave as smolts and travel out past the Queen Charlottes before returning to the Creek in four years.

#### **Chum Transplant Cancelled**

Earlier this year, just when the Goldstream hatchery released their chum fry, the majority were killed by that tragic gasoline spill on the Malahat. As a result, the hatchery needed to hold over their chum this year to protect the genetic Goldstream stock. This is the first year we have missed a chum transplant in a long time; sadly, four years from now it is unlikely that we will see any returns.

But for this year, Goldstream is just now seeing good chum returns. Hopefully the returns will provide sufficient stock to allow for a fry transplant and release into Douglas Creek next May. The date will be posted on our web calendar. It's a super event for children.

## Carcass Transplant

Did you know that Douglas Creek was the first in Canada to receive authorization from the Department of Fisheries and Oceans to perform a carcass transplant between watersheds? The fact that salmon die after spawning is an important aspect of the entire life cycle. The carcasses provide essential nutrients to the stream and provide food for a wide range of forest inhabitants like eagles, bears and racoons. In streams like Goldstream with perhaps 20,000 chum returns (and every other small stream from California to the Bering Sea) the salmon spawn and die. That's 40,000 kg of "fertilizer". We've asked the hatchery to save some carcasses for us to put into Douglas Creek in December or January. Again, watch our web calendar; throwing a salmon carcass into the Creek is one of life's great experiences!

### **Douglas Creek Habitat Restoration**



This was the only tree identified as a danger tree; it was topped to remove the danger and left as a wild-life tree.



Logs are used to protect the banks and to provide salmon habitat. Because of the large storm surges, each log must be anchored to heavy rocks with cables.



The Douglas Creek Restoration Crew Ryan Meuser, Bob Bridgeman, Kelly McKeown, and Walter Langer (Spyder Hoe operator)

This year four salmon spawning pools with connecting riffles were constructed, and they are true successes, we think the best yet. Special thanks to all our project partners, especially Saanich Parks for their work and the Pacific Salmon Foundation for their funding grant. We are sure the salmon will like the results, as the riffles now allow for up-and-down stream travel, not just for the returning salmon, but also for the salmon fry and smolts. The pools now have good gravel for spawning and, equally important, they change a clay bottom, pipe-like channel, into a truly natural looking stream, a pleasure to view. Although the most

visible work took place during the fish window in late August, early September, the project encompassed many other projects over a year span. Some highlights:

- Fall 2010: Seeds collected for Tree Appreciation Day (see separate article). Although somewhat a separate project, the tree and shrub planting is all part of the Creek restoration.
- Fall 2010: Pacific Salmon Foundation grant request submitted (and their \$9000 grant making this work possible is greatly appreciated.)
- Winter 2010-2011: Survey of site, exact stream elevations determined, initial pool and riffle designs.
- Spring 2011: Estimates of required material (300 cubic meters of fill gravel, spawning gravel, small fill rocks, large ~1.0 m diameter anchor rocks plus 10 tree trunks and six root balls), how to stage it, how to get it into the Creek bed.
- August 2011: Stage material along Creek banks.
- August-September 2011: Material moved down to Creek. Spyder Hoe (AllTerra Spider Excavating Ltd.)
  - Placed logs to protect Creek banks and stumps to provide habitat.
  - Placed large rocks to form pool dams; filled crevices with small gravel to seal so water flowed over top and moved spawning gravel into pools.
- Trail used for material delivery was restored.
- Area around trail and Creek banks planted on Tree Appreciation Day.

Photos and a video of the Creek restoration work is on our web site photo albums page.

#### Research in the Park: an Enduring Tradition

In the days when the park was a mysterious and unknown place for most people, it was already home to many long-term research projects. The Forest Service's "Forestry Growth and Yield" study has led the way with decades of data in its files. Others have focused on specific problems such as the "Endangered Species and Inventory" study carried out by Saanich staff in the area close to Durling Place. We tend to be preoccupied by the large issues of urban encroachment and forget that the park is one of the last major refuges for species that the province has classified as endangered. Studies such as this one help to show

what will be lost if we are careless.

In a similar vein, the current interest in promoting the planting of native species and removing transplanted and invasive species has a relatively short history, in which Hans Rohmer's work in the park is seen as a turning point; the problems he highlighted are still with us today. And then there is the problem of rapid and catastrophic change such as the widespread destruction of the Garry oak ecosystems and the valiant efforts made by people such as Hal Gibbard, Laurie and Michael Vaninsberghe and others to reverse the trend across the southern tip of the Island including three GORP sites within the park. However, the largest effort in recent years has been directed at finding the most efficient way of removing invasive species such as broom, ivy and garlic mustard. Judy Spearing, Dick Battles, John Jungen and their teams remove mini mountains of the stuff on a regular basis, and the fruits of this work can be seen in the variety of plants that spring up where they have worked. The most recent sites are along Glendenning, Churchill and the Cedar Hill Fire Road; April would be a good time to look at the results. Of course, it is always a good time to join them (See our web calendar for time, places and contacts).

As a special, "one-off" effort, it would be difficult to beat the Russian helicopter dropping a chipper half way along the Mercer trail. This was the way we chipped all the broom cleared from the meadow beside the trail without the expense and damage of trail widening to bring in the chipper in the conventional way. The idea worked and the meadow bloomed. It showed enormous quantities of invasive species can be quickly treated in remote areas without damaging the surroundings.

With regard to the beach, many people have done photographic studies of the plants and sea creatures on the beach but the only comprehensive one was produced by Archipelago as part of the cliff stabilization project. This year, there is a team from Camosun College's Environmental Technology Program assessing current status of the beach where the stabilization work will be done, and their recommendations for replanting will provide a means of regenerating the beach as well as stabilizing the cliff in the future. Royal Roads and UVic. students and their supervisors have provided similar input over the years; it is always refreshing to have new eyes looking at long term problems. In return, the park provides an outdoor classroom for many aspects of environmental restoration work, and this is especially true of the Creek which now is a case study of what can be achieved.

To end on a somewhat melancholic note; most people thrill at the sight of an eagle taking off, are amused by the pileated woodpecker drilling into a tree and are calmed by the still

grace of a great blue heron at the water's edge. Unfortunately, there is no comprehensive picture of the birds that nest in the park nor of those that stop here as part of their annual migration. If there are any ornithologists who would like a challenge, here is an opportunity to make a significant contribution.

# Churchill Drive Walkers; 20th Anniversary as Saanich Park

Churchill continues to attract more and more walkers; many are there for the exercise, others to enjoy the natural park setting.

One of the suggestions to celebrate the 20<sup>th</sup> anniversary of the Park trust transfer to Saanich is to enhance the Churchill walk experience. Two ideas supporting this have been put forward.

The first recognizes the 1500 m walk and 160 m rise by placing combined distancealtitude markers along Churchill Drive. (similar to the street name stones embedded in the sidewalks at street corners in downtown Victoria.) Each stone should show the distance from the start the Churchill Drive plus current altitude.



The fit set: Vincent Holmes (82), Doreen Elton (87) and Margaret Morris (94) regularly walk along Churchill Drive to the summit area. Next time you see them, stop and say hello!

The second is an attempt to deal with those vehicles that arrive from the Shelbourne speedway and don't recognize that Churchill is different; it's a park road and they should expect walkers on the roadway. Many years ago, the Park had entrances framed with logs.

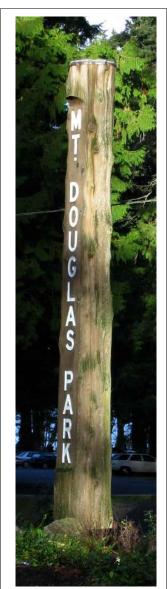
The suggestion is to honour this historical aspect and to address the current lack of distinction between Shelbourne and Churchill with a newly designed gateway. We are looking for ideas, but possibly a "totem", something like at the beach parking lot entrance, on both sides of Churchill in the vicinity of the current gate, would work. A goal is to make drivers aware that they are entering a different environment, Mount Douglas Park.

Another suggestion that we are pursuing is a shelter and BBQ facility in the beach parking area to replace the old BBQ that was removed for safety reasons a few years ago. This could also serve as an event meeting place or as a small interpretive centre.

Do you have a suggestion for a Park enhancement to honour our 20<sup>th</sup> anniversary?



A sample proposed stone distance and altitude marker to be installed along Churchill Drive. The stones, 23 cm square, would be set flush in the road centre at 100 m intervals from the bottom of Churchill along the 1500 m to the summit parking area.



A similar "totem" could form a park "gateway" entrance to Churchill Drive, distinguishing it from the Shelbourne speedway.

#### **Board of Directors**

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## Membership Renewal - Gift Membership

Providing information via this newsletter about the Park is an important Society function. We want to reach more Park users and Park neighbours. Why not **give someone you know a gift subscription, perhaps as a Christmas gift, and include it with your renewal?** A one year membership isn't much more than the price of a good cup of coffee! You provide the gift and we'll send notification to the recipient of your generosity. We hope you will continue to support the work of the Society for another year.

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