



# T'aanuu Telegram

A NEWSLETTER ABOUT EELGRASS CONSERVATION IN BRITISH COLUMBIA

Issue No.4

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## *T'aanuu is Haida for eelgrass*

The Seagrass Conservation Working Group (SCWG) is a consortium of stewardship groups, government agencies, First Nations and consultants working to conserve and protect seagrasses in British Columbia since 2001.

SCWG meetings are held quarterly in various sites of the Strait of Georgia. Our website: [www.stewardshipcentre.bc.ca/eelgrass/index.html](http://www.stewardshipcentre.bc.ca/eelgrass/index.html)

Training manuals, maps and other documents are available on the Community Mapping Network website: [www.shim.bc.ca](http://www.shim.bc.ca)

Contact the SCWG & the SCWG Chair at [seachange@shaw.ca](mailto:seachange@shaw.ca)

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## *SCWG Is In Its Fourth Year!*

Welcome to the fourth *T'aanuu Telegram* of the Seagrass Conservation Working Group (SCWG)! Since 2001, the SCWG has been working with government agencies and conservation groups and First Nations communities to protect and conserve eelgrass habitats in the province. Over the past year, we have launched our beautiful web site: [www.stewardshipcentre.bc.ca/eelgrass/index.html](http://www.stewardshipcentre.bc.ca/eelgrass/index.html)

The site is managed by Nancy Angermeyer, the eelgrass project coordinator for Saturna Island.

Cynthia Durance completed the training manual for mapping *Zostera japonica*. Nikki Wright

posted a discussion paper on community based eelgrass restoration. *Friends of Semiahmoo Bay* and the *Cowichan Community Land Trust* have demonstrated that community volunteers are capable and enthusiastic to help with eelgrass rehabilitation, given sufficient training and support.

Thank you to all the project coordinators along the entire coast for “putting eelgrass on the map”!

We will be celebrating our achievements and finding out how we can move forward in the coming years during a conference of the *BC Eelgrass Community Network* January 21-22, 2006 (See Announcements).

## *Introducing a New Logo for SCWG*

It is with great pleasure that we introduce the new logo for the Seagrass Conservation Working Group! The logo has been showcased at the recent Climate Change and Fisheries Management conference in Victoria. Both Cynthia and Nikki had posters there and the logo was on the posters and on business cards created for the event. More SCWG cards will be made available to the eelgrass network.

Jon Zavadil has donated his time to create this logo for us based on discussions at a SCWG meeting. Thanks very much Jon for your support! Jon has recently moved to the coast and is very excited about eelgrass. His skills as a SCUBA diver and a graphic artist has greatly helped the SCWG. His e-mail address is [jzavadil@shaw.ca](mailto:jzavadil@shaw.ca)



## *Skimboardus Decorum*

Margaret Cuthbert

In addition to a very active spring/summer of eelgrass mapping and monitoring, Friends of Semiahmoo Bay Society joined forces with the Breakneck Skimboarders in a collaborative project aimed at educating boarders about the importance of our eelgrass beds and ways in which we can all work together to protect our beaches. The Skimboarders Guide to a Healthy Beach was born!

As well as developing and distributing these unique posters, the Breaknecks crew took the eelgrass conservation message to their skimboarding camps. Skimboard enthusiasts at White Rock Beach were encouraged to establish Eco-Friendly Boarding Zones and to re-connect with Nature!

You can help spread the *Skimboardus Decorum* to a beach near you...visit [www.birdsonthebay.ca](http://www.birdsonthebay.ca) to download the poster!



Remember to check the Birds on the Bay website, at [www.birdsonthebay.ca](http://www.birdsonthebay.ca), for our 2006 program! Birds on the Bay is an annual celebration focused on raising awareness and knowledge of Boundary Bay and its watershed, a very special place! This year's program features a full slate of activities and events including kayaking, walks, talks, art and photographing programs, owl prowls and much more!

## ***Ghost Shrimp Research***

Cynthia Durance

Ghost shrimp (*Neotrypea californiensis*) are often found in and around eelgrass beds. They excavate extensive burrows underground, with chambers and tunnels. The entrances and exits to their burrows are typically surrounded by small mounds of sediment. The ghost shrimp are harvested in some communities for fishing bait.

Dr. Ted Dewitt, (EPA, Oregon) is a world-renowned expert on ghost shrimp population dynamics. He is embarking on a study to examine the population genetics of these shrimp from various locations along the Pacific coast. He would like to include British Columbia in the study, and has asked whether the members of the Seagrass Conservation Working Group would be able to assist him with the research. If you have noticed ghost shrimp while visiting the eelgrass beds in your community, and you are interested in assisting Dr. Dewitt by collecting samples for analysis, please email Cynthia ([precid@shaw.ca](mailto:precid@shaw.ca)) for further information.



## ***Eelgrass – It Gets Around!***

Leanna Boyer

I was planning a trip to Edmonton to visit a childhood friend with whom I have recently reconnected. I had mentioned to her that I was working on a Masters degree in community participatory eelgrass conservation. She had recently discovered that she had a second cousin living in Edmonton and over a dinner gathering mentioned what I was doing in BC. It turned out that her cousin lives on Quadra Island for part of the year and at the mention of eelgrass, her and her husband's ears perked up. They and their neighbour were planning on constructing a dock but were concerned about the eelgrass, knowing that it is illegal to destroy! During my visit in Edmonton I had the pleasure of meeting my friend's cousin and we "talked" eelgrass, possibly the most exciting subject ever! I brought with me contact information for Deb Cowper, the eelgrass coordinator on Quadra Island. Could this be due to the efforts of the eelgrass network? I'd like to think so. And talk about a small world. I hope you hear from them Deb!



# SQUAMISH RIVER WATERSHED SOCIETY

Edith Tobe

## Update on Eelgrass Activities in Squamish and Upper Howe Sound

The town of Squamish, located at the upper end of Howe Sound, approximately 52 km north of Vancouver, is a coastal fjord of British Columbia. The Squamish River empties out into Howe Sound through the Squamish estuary. Over the past 100 years the estuary has been greatly compromised and reduced in size as the townsite has expanded to what it is today.



Overview 1954



Orthophoto – 1999

Over the past few years the Squamish River Watershed Society has been actively involved with the Seagrass Conservation Working Group in identifying historical eelgrass presence in and around the Squamish waterfront. Not much historical information exists on this site. The anecdotal information from Squamish Nation is that at the turn of the century and well up until the 1960's the coastal communities would harvest the roe from herring that would spawn on the eelgrass. With this in mind, and through the help of Margot Hessing-Lewis (who concentrated her masters degree on the assessment of the potential for eelgrass restoration in coastal Squamish) the areas within upper Howe Sound most suitable for eelgrass was mapped and some restoration sites were identified. In the summer of 2004 four areas were targeted and eelgrass transplants were planted in quadrats of varying numbers.

Eelgrass planting  
party in  
Cattermole  
Slough  
(summer 2004)



Over a year and a half later, in December 2005, these plants (the plots that have remained after an unusual number of flood events) are still holding on and growing. The purpose of Margot Hessing-Lewis' research was to determine if eelgrass could grow on areas that have been impacted by logbooms and an accumulation of woody debris. Through her research the eelgrass planted under these conditions has survived quite well and looks favourable for a more substantial restoration project.

In the past year of 2005 the Squamish River Watershed Society met with the *GreenShores* Stewardship Team on several occasions to discuss developing a pilot *GreenShores* programme in Squamish. It has taken a little bit of discussion with the District of Squamish but the District has now shown full support in this endeavour and would like to embrace a *GreenShores* approach to new shoreline development. This allows the Watershed Society to further our opportunities to establish eelgrass colonies in areas that may not necessarily have any eelgrass beds at this time.

It is with this in mind that we head into the 2006 field season, in the hopes to transplant a significant amount of eelgrass now that we have established that the pilot project has survived and looks to be establishing itself. There is much yet ahead for the Squamish River Watershed Society working with Squamish Nation and numerous other groups to undertake for this year. With the increased recognition of the importance of eelgrass we are starting to make inroads and developers who have their eye on the increasingly available Squamish coastal shorelines are now being directed to contact the Watershed Society and discuss options to ensure healthy foreshore that will allow for vegetative communities such as eelgrass.

If anyone is interested in learning more about what the Squamish River Watershed Society is doing or access Margot Hessing-Lewis' masters thesis then please be sure to check out our website [www.squamishstreams.com](http://www.squamishstreams.com) to find out more.

## ♣ “Ask Cynthia” ♣

Dear Cynthia,

Why is the SCWG interested in restoring former eelgrass beds, wouldn't it have come back naturally if the habitat was suitable? Signed Habitat Challenged

Dear Habitat Challenged;

The native eelgrass (*Zostera marina*) does not reproduce very effectively from seed. Therefore, once it is eliminated from an area it is unlikely to ‘come back naturally’. It does however reproduce very well vegetatively via branching. A single transplanted shoot of eelgrass often produces ten shoots per year, under good conditions. However, if the impact that led to the loss is still present then it is highly unlikely that transplanted eelgrass will survive. At many sites the impact was temporary, such as shading by barges or logs booms, these are excellent candidates for transplanting projects. In cases where the impact that led to the loss is unknown, pilot (small scale) transplants should be used to determine whether the habitat is in fact capable of supporting eelgrass. If the transplanted eelgrass survives several seasons then additional transplanted is recommended.

Sincerely,  
Cynthia

Eelgrass Rhizomes



## New SCWG Sporting Event Michele Deakin

Geocachers usually look for hidden treasure, using their GPS units to guide them. On Saturday, August 20<sup>th</sup> 2005, nine geocachers from Comox, Powell River, Parksville, and Qualicum Beach found treasure of a different kind. Armed with their GPS units and a lot of enthusiasm, this group of volunteers mapped the entire perimeter of natural eelgrass beds on Rathetrevor Beach.



One group that is particularly interested in this data is the Canadian Wildlife Service. Rathetrevor beach area is a key feeding zone for the Brant geese. Scientists want to determine if the trends in Brant geese populations are connected to trends in eelgrass growth.

The information collected during the event will be added to other data collected earlier this year. In the spring members of the Seagrass Conservation Working Group were out mapping the subtidal areas by boat. Together the information will provide the big picture about the eelgrass in this area.

The data will certainly be important, but the really exciting part of this for the Seagrass Conservation Working Group is the potential for a much larger event! Geocachers live in all of our communities. They also communicate constantly amongst themselves through their websites. Perhaps we can encourage similar events around the province to raise awareness of eelgrass. A competition between communities might be possible! Or a cooperative event between communities where we cumulate the hectares mapped might work too! Either way it would be a fun way to highlight the Working Group, get some media coverage and get some mapping done.

Food for thought at future SCWG meetings!

# Wildlife Impacts on Eelgrass Beds

Cynthia Durance

Over the past few years we've noticed that humans aren't the only species to impact eelgrass beds. In 2001 I witnessed **green urchins** decimating part of an eelgrass bed in Campbell River, and have since heard of another site in Sechelt Inlet where they completely eliminated eelgrass from a small bay. **Canada Geese** have decimated numerous beds on the Atlantic coast and severely impacted others.

Researchers in Atlantic Canada have recorded a tremendous decline in eelgrass coinciding with the introduction of the **green crab** (*Carcinus maenas*). A 95% decline in eelgrass habitat was recorded in Antigonish Harbour, Nova Scotia between 2000 and 2001. A subsequent study of 40 harbours in Nova Scotia documented declines in 31 of 40 harbours, and in all cases where declines were noted there were abundant or increasing numbers of green crabs. Several green crabs have been found in British Columbia but it is believed, and hoped, that it is unlikely that the green crab will ever establish here in significant numbers thanks to the Dungeness crab. The larger Dungeness crab apparently has an appetite for the smaller green crab.

Members of the Cowichan Community Land Trust observed **swans** pulling up recently transplanted eelgrass this fall. While working on a transplant project in Sooke we saw swans pulling eelgrass that had been prepared for transplanting out of the submerged containers.

Nikki Wright and Michele Deakin witnessed a **Grey whale** in the bay off Rathetrevor Park foraging for hours as they were mapping eelgrass from their zodiac. They had wondered why there were large bare patches in an otherwise continuous bed in the shallow waters off the beach. Recently, Rick Harbo (Fisheries and Oceans Canada) told me that he has seen Grey whales uproot eelgrass in Clayoquot Sound when feeding on herring spawn in the shallows. He also observed considerable digging by **sea otters** in eelgrass beds on the west coast of Vancouver Island.



Sea otters have dug the holes shown in the eelgrass bed

Photo supplied by Rick Harbo (Fisheries and Oceans Canada).

It is interesting to ponder whether all of these species have always impacted eelgrass beds, or whether in at least some cases they are changing their foraging behaviour in response to a reduction in the abundance of their preferred food source, or perhaps to large scale environmental change. Anyone want to take this one on as a research subject?



## *Announcements*

### *Conference for the Eelgrass Network*

Campbell River will see eelgrass enthusiasts arrive in their town this January from all points of the coast. For two days, we will discuss the use of maps used in coastal communities for eelgrass conservation, the support that is needed to continue mapping and monitoring and meeting those needs on local, regional and provincial levels. We will also discuss how we can extend our work to create a net increase in these emerald habitats, and how we can further enhance conservation of our nearshores. Reports from the conference will be posted on the SCWG website ([www.stewardshipcentre.bc.ca/eelgrass/index.html](http://www.stewardshipcentre.bc.ca/eelgrass/index.html))  
Funding for this conference is from the Real Estate Board, Department of Fisheries & Oceans, Squamish River Watershed Society and Canadian Wildlife Service. Thank you!

## *Call for Photos*

With the increase in communications work, the SCWG needs more photos. These photos will be used to create tools for the project coordinators to use in their own communications work, and to also promote the SCWG and our mission further abroad.

Please send images that fit the following categories: wildlife in eelgrass beds, volunteers busy at work, partners busy at work, programs that you run, birds, marine mammals, ecotourism in action, fishermen at work, subtidal shots, issues impacting eelgrass beds - log booms, sea walls, trampling, anchors, kayak dragging, shoreline development, etc. Once we have a collection, the SCWG can put together CDs to go out to the SCWG members for your use.

Please be sure that the SCWG may have all rights to the images, and that if any person can be recognized in the photo, that proper release forms have been signed. Credits will be given for photos so please provide proper name where necessary. Photos can be sent to Michele Deakin at [auklet@shaw.ca](mailto:auklet@shaw.ca), or on a CD to 1097 Fabrick Drive, Qualicum Beach, BC, V9K 1M9