

# SeaChange Marine Conservation Society



**2017-2018 Annual Report**  
[www.seachangesociety.com](http://www.seachangesociety.com)

## WHO WE ARE

SeaChange Marine Conservation Society was established in 1998 as a charitable non-profit environmental organization. We educate children and the public about marine and watershed environments and conserve and restore marine habitats in British Columbia in partnership with coastal communities.

## OUR GOALS

- *To educate the public regarding the effects human populations are having on marine ecosystems.*
- *To conduct education workshops for schools and the public on marine conservation issues.*
- *To organize expeditions for on-site interpretation of ecosystems for the public.*
- *To cooperate with other environmental groups to promote systemic change in the ways we make use of marine resources.*
- *To participate with other like-minded organizations to create marine sanctuaries, collect data and organize workshops and conferences on the importance of rehabilitating and sustaining marine biodiversity.*
- *To reverse the continual degradation of marine ecosystems through restoration, rehabilitation and/or conservation activities.*



## Notes from the Executive Director's Seat

Nikki Wright

It is the middle of January, 2018 near the Cowichan estuary. A group of 35 community members from Vancouver and the Gulf Islands is deeply focused on the marine and nearshore areas that need our attention near their home places. Throughout the day, during presentations, small group discussions and one on one conversations, I was soaring with joy that this moment had arrived. Since 2000, SeaChange had been working in contact, but not in community, with many of those present at this meeting. Now we had opportunities to work in concert, over time, to recover marine nearshores in the Salish Sea.

SeaChange is one of the fortunate groups to receive five year funding from the Oceans Protection Plan's Coastal Restoration Funds (CRF) in 2017. In this room we were beginning the journey towards implementing multi-regional nearshore restoration action plans. This meeting was the first of many gatherings to occur over the next five years. We were listening carefully to the concerns of local citizens, First Nations members and scientists about their knowledge of marine sites. This knowledge of place is vital for nearshore marine recovery in an age of increasing population and climate changes. We will recover these sites through communities participating in transplanting eelgrass, installing native plants and removing debris from shallow seabeds. All this work would be improving habitats for salmon and the forage fish and insects upon which they depend upon for nearshore survival.

It would be a great day when restoration is no longer required. It is the connections made in that room, and several to follow, that make the difference between wasting time and full, honest, healing the disease that face our oceans. When we heal the deep disconnected fracture between ourselves and the earth, the real restoration will have taken place.

Until then, SeaChange is making connections within coastal communities. We celebrate them. Without the enthusiasm, knowledge and passion to make a difference and their willingness to act, we would not be as effective or enlivened to continue into our second 20 years.

*Nikki Wright*

This Annual Report is dedicated to all members of BC's coastal communities.



SeaChange accomplishes much because of the dedication of the  
SeaChange Board of Directors 2017-2018



Garry Fletcher, Michael Rassenti, Doug Biffard, Rosaline Canessa and Ken Josephson

And staff: Alison Prentice, Administrative Assistant, Sarah Verstegen, Operations Manager, Nikki Wright, Executive Director, Leanna Boyer, Communications Coordinator, Earl Claxton Jr. Tsawout Elder and Judith Lyn Arney, SeaChange volunteers, Coast Salish, Cowichan, Tseil-Waututh, shíshálh and Squamish First Nations



All donors and funders

BC Parks

Lenny Ross

Educators within School Districts #61 & #63 and the WSÁNEĆ School Board

Seagrass Conservation Working Group and the Coastal Regional Fund Regional Coordinators

Department of Fisheries and Oceans Canada

Capital Regional District Parks staff

Local Businesses

Coastal Photography Studio

Dr. Leah Bendell, Simon Fraser University

University of Victoria Geography Department

Cynthia Durance, R.P. Bio Precision Identification

...and all the environmental conservation groups with whom we have had the privilege of working:

Conservancy Hornby Island, CORI Ocean Watch, Cowichan Community Land Trust, Friends of Tod Creek Watershed, Friends of Semiahmoo Bay, Gabriola Eelgrass Mappers, Galiano Conservation Association, Habitat Acquisition Trust, , Mayne island Conservancy Society, Moonstone Enterprises, Pender Island Conservancy Association, Peninsula Streams Society, Saanich Inlet Protection Society, Seaquaria in Schools, Squamish River Watershed Society, Thetis Island Nature Conservancy, and World Fisheries Trust.



# Achievements over the last fiscal year

July 1, 2017 – June 30, 2018

## Education

Over 2,000 students of varied ages participated in SeaChange environmental programs over the past year.



SeaChange welcomed over 1200 students from elementary and middle schools into its “hands on-feet wet” EcoRowing program. a 53% increase from the previous year. Forty classes from School Districts #61 and #63 participated in paddling, restoring native plant communities and testing the water quality of the inlet in SNIDZET- pronounced *sngheet kwiths*.

We held educational programs for Camosun College, Redfish School for Change and the Chinese Youth Leadership groups through the University of Victoria, and the University of Vancouver Island’s Tamagawa program. We have offered year-round field trips to many other individuals participating in local environmentally focused conferences. A total of 840 participants, from elementary to university levels participated.

CRD Marine Day



Redfish School for Change

Lenny Ross with future rowers



## Conservation

SeaChange participated in or initiated over 20 community gatherings and presentations this past year for the conservation of the Salish Sea

A Marine Restoration Symposium was held March 1<sup>st</sup>, 2018 at the Vancouver Island University Duncan campus. To an audience of 25 people, the following gave talks:

Maggie Branton (DFO, Coastal Restoration funded projects in the Salish Sea), Cheri Ayers (BioAyer Consultants: *A Whole Watershed Approach to Restoration of the Cowichan Estuary*), Sarah Bittick (Researcher, UBC Biodiversity Research Centre: *Evaluating links between water quality and biodiversity of eelgrass ecosystems: a community engagement approach*, Natasha Nahirnick (UVic researcher): *Use of aerial photography for long-term change assessment of eelgrass habitats and associated land-use impacts and Ian Bruce (Director, Peninsula Streams Society|): *Tod Creek Watershed restoration challenges and successes.**



SeaChange was able to hold this free event with relative little effort because of the kind efforts of Tom Rutherford, former DFO Community Advisor, and now a community leader for the Cowichan Water Quality Board. We hope to organize more of these very informative collaborative meetings in the future.



Several community meetings were held during the year for the Salish Sea Nearshore Habitat Recovery Project. Four Regional Coordinators were selected for each region within the Salish Sea – the Gulf Islands, Howe Sound, Sechelt Inlet and Burrard Inlet. These Coordinators plan and implement restoration activities for nearshores within their regions with the SeaChange Project Manager. These include eelgrass and marine riparian restoration and debris removal in shallow

waters where eelgrass and/or forage fish are present. The purpose of this five year project is to increase nearshore habitat and food webs for all species of salmon. Community members during each meeting discuss areas of concern. Each region then holds several Technical Meetings to prioritize these sites according to criteria based on science and local expertise. We are now in the second year of the project.

With support from the Pacific Salmon Foundation SeaChange is working with Simon Fraser University Professor, Dr. Leah Bendell of the Department of Marine Ecology and Ecotoxicology. We are investigating the levels of hydrogen sulfides (H<sub>2</sub>S) in sediments that would otherwise support eelgrass growth in the Cowichan Estuary and in several other areas where we transplant eelgrass. A map of varying levels of H<sub>2</sub>S within the Cowichan estuary helped to determine the best areas to consider eelgrass restoration for the Cowichan/Koksilah Estuary Restoration Project – a whole watershed approach to the restoration of the Cowichan estuary. SeaChange serves on the Technical Committee for this five year Coastal Restoration Fund project.



Jen and Alison at Oceans Day, Fisherman’s Wharf, June 10, 2018



The Teaching House in SNIDŪĒĒ was built with many in-kind contributions from local members of the trades and with donations from the local community. It was constructed to replace the ageing Tod Inlet Nature Float. Until improved barge support is procured, it awaits in the inlet for the opportunity to house educational interactive materials and equipment for young people and the public.



# Restoration

SeaChange completed two underwater debris removals on Gabriola and Salt Spring Islands, transplanted eelgrass in Genoa Bay and near Thetis and Pender Islands, and installed several hundred native plants in SNIDØEL.

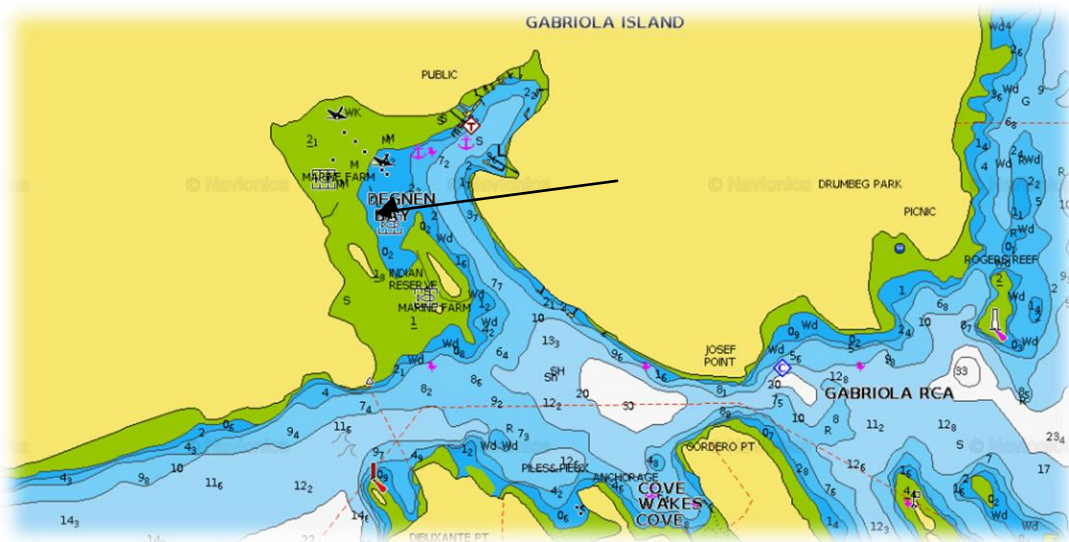
*None of this could be done without the labour and passion of community volunteers.*

## Underwater Debris Removal



Tons of debris was removed from Burgoyne Bay on Salt Spring Island. In the late fall of 2018 the boat on the above right, the *Pacific Oyster*, which sunken in 2017, will be removed by the Dead Boat Society. In the spring of 2019, SeaChange will be able to replant the eelgrass destroyed by this derelict vessel in concert with Cowichan Tribes.

In Degnen Bay, Gabriola Island, tons of underwater debris was taken off the seabed. A video of the removal and future actions can be viewed on the SeaChange web site ([www.seachangesociety.com](http://www.seachangesociety.com) Restoration)



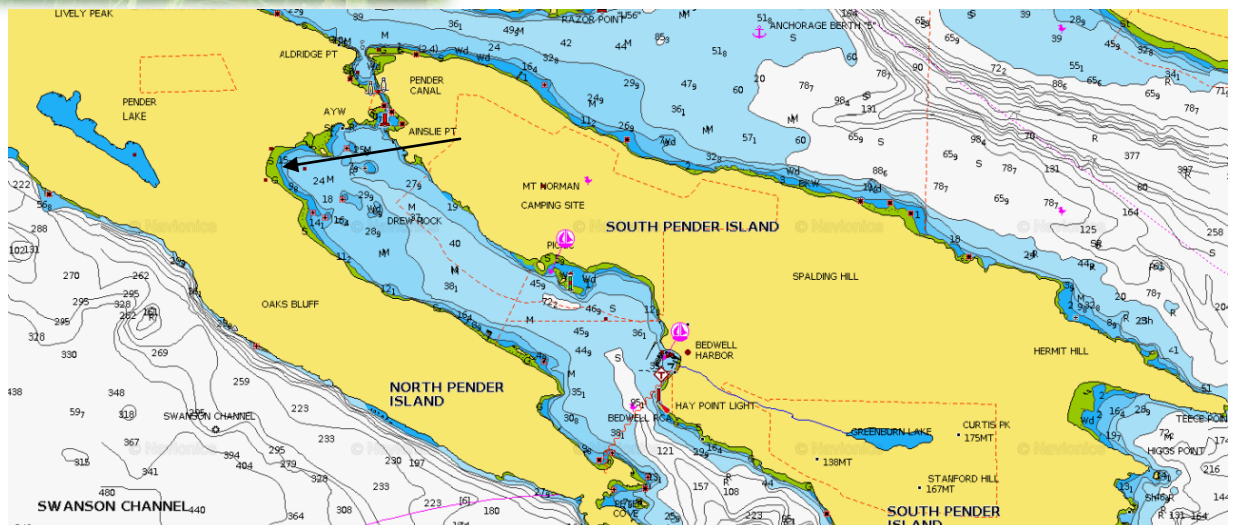


Raising debris from the seabed of Degnen Bay with the crane on the SeaChange boat, *Collective Effort*.

## Eelgrass Restoration and Monitoring

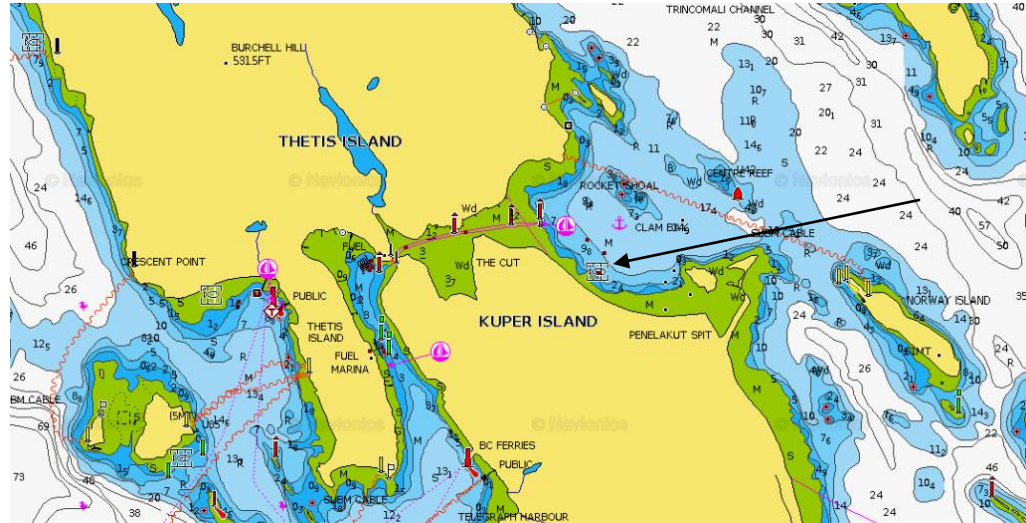


Eelgrass in Medicine Beach, Pender Island six months after transplant





Community members of Thetis Island preparing eelgrass shoots for a transplant in Clam Bay



A continuous eelgrass bed had been damaged by two abandoned mooring blocks in Clam Bay. One site selected for eelgrass transplanting is situated on the north side of a mooring buoy that was removed with permission from the owner. Two hundred shoots were planted at this site; 500 shoots were placed south of this site, near a mooring block without a chain attached.

Eelgrass habitat six months after the transplant.



## SNIDŪEŁ Terrestrial Restoration

Creatures of Habitat visited SNIDŪE for the ninth year. Two hundred Bayside Middle School organized by Peninsula Streams work removed invasive plants in preparation for a larger restoration effort.



Site near the Benvenuto Gate before invasive plant removals

As well many community volunteers and the SNIDŪEŁ Resiliency Crew worked intensively to clear



the large tract of ivy and replace it with native vegetation.



Cleared and ready for planting



The SNIDŪEŁ Resiliency Project (2017-2019) is completing its last year, led Judith Lyn Arney. Land and cultural restoration events continue as WŚÁNEĆ community members take more leadership responsibility in SNIDŪEŁ to recover this special place.

# Future Plans

## Education



SeaChange will deliver EcoRowing programs in the fall of 2018 and the spring of 2019 to an ever increasing number of elementary and middle school students. Native plant restoration, marine studies, canoeing or rowing, ethnobotany and a SENĆOŦEN language learning component will be offered.



The Teaching House in SNIDŦEL will be prepared to serve as an educational classroom on the water to orient youth and others to SNIDŦEL's unique history and wealth in order to find their own watershed places. The structure will house an integrated First Nations and Western marine science and indigenous language approach to learning.



SeaChange will continue to develop robust, relevant and interactive environmental programming for all ages.

## Conservation



SeaChange will continue to work with Cowichan Tribes to increase the health of the Cowichan estuary through monitoring the existing eelgrass habitats and serving on the Technical Committee for the Cowichan/Koksilah Estuary Restoration Project.



SeaChange will continue to work with BC's coastal communities to increase the health and resiliency of nearshore marine habitats and continue to build upon the network of coastal communities established over the years.



SeaChange will continue to participate in the Saanich Inlet and Cowichan Stewardship Roundtables.



The Seagrass Conservation Working Group, of which the SeaChange Executive Director is Co-Chair, will continue conserving nearshore habitats through inventories, nearshore restoration and public education.

## Restoration



SeaChange will continue to partner with Simon Fraser University and other universities and colleges to support applied research of the limiting factors of eelgrass growth in degraded log storage sites.



We will continue to restore and monitor eelgrass habitats within the Salish Sea and find ways to research solutions to the presence of eelgrass wasting disease (*Labyrinthula zostera*) to

investigate resilient strains of native eelgrass to adapt to rising sea surface temperatures.



SeaChange will begin the restoration of the seabed in Tod Inlet, a long term project to recover the ecological health of the inlet from historical damages.



SeaChange will increase its capacity for marine conservation, education and restoration by continuing to employ part-time staff for administrative and field work.

## **Funding Sources for SeaChange Marine Conservation Society 2017-2018**

### **Grants**

Environment Canada	SNIDØEL Resiliency Project
Greater Victoria School District	EcoRowing in SNIDØEL
Ministry of Environment	Permits to work in SNIDØEL; In-Kind support for Conservation
Department of Fisheries & Oceans	Salish Sea Nearshore Habitat Recovery Project (SSNHRP)
Pacific Salmon Foundation	Leveraged funding for SSNHRP
Sidney Anglers Association	Leveraged funding for SSNHRP
Yacht Association of B.C.	Leveraged funding for SSNHRP
World Wildlife Foundation	Leveraged funding for SSNHRP
Recreational Fisheries Conservation Partnerships Program (RFCPP)	Marine debris removal in Burgoyne Bay
Service Canada	Summer staffing for the stewardship of SNIDØEL

### **Other Funding**

Donations through Canada Helps	Core expenses
BC Parks	In-Kind consultations/permits
CRD Parks	Marine Day at Witty's Lagoon
Horne Coupar Barristers & Solicitors	1% for the Planet - core expenses
Individual donors	Core expenses
Roy Group	1% for the Planet – SNIDØEL programs
Private donor	Leveraged funding for summer staff and programming
Squamish River Watershed Society	Eelgrass restoration/monitoring in the Squamish Estuary
University of Victoria Geography	

Department	In-kind labour & equipment Coastal Community Mapping & GIS support, programming for the Chinese Youth Leadership Program
User Fees	EcoRowing in SNIDØEŁ, Ethnobotanical tours, beach programs
SCUBA Diving contracts	Eelgrass compensation projects and other contracts

### Supportive Local Businesses

Mitchell Farms  
 Zanzibar Restaurant  
 Sherwood Marine  
 Tonelli's Delicatessen  
 Brentwood Bay Village Emporium  
 Level Ground Trading  
 ACE Courier  
 Breadstuffs Bakery  
 Soap Exchange

Glass Foundry (Salt Spring Island)  
 Horne Coupar Barristers and Solicitors  
 Island Blue Print  
 Mill Bay Marina  
 Pixelart Computers  
 Polster Environmental Services Ltd.  
 Roy Group  
 Russell Nursery

Photos: All photos taken by SeaChange staff