

Rising Tide

Robson Bight Update

Just hours after Living Oceans announced the launch date of our underwater investigation of the barge spill in the Robson Bight whale reserve, B.C. Environment Minister Barry Penner called to tell us that the federal and provincial governments would collaborate on their own underwater investigation. The B.C. Ministry of the Environment is taking the lead in the government investigation and plans to conduct a thorough investigation in mid November. Because Living Oceans has been given observer status and will be provided with a copy of any video collected, we have decided to shelve our own plans — plans which were motivated by the lack of government action up to that point. Congratulations to the provincial and federal governments for taking responsible action.

Living Oceans, Greenpeace, and concerned whale organizations (Stubbs Island Whale Watching, MacKay Whale Watching, OrcaLab, Raincoast Research) raised over \$40,000 for our planned investigation thanks to a generous outpouring of support from concerned people and organizations around the world. Living Oceans and our partners will hold onto the funds raised until we determine the government investigation has been thorough and transparent.

The Coast Guard originally viewed an investigation as unnecessary after computer modelling predicted that the tank of a fuel truck carrying 10,000 litres of diesel had likely imploded and its toxic cargo had floated to the surface and evaporated. Even if this turns out to be true, it does not account for the additional 9,000 litres of fuel contained in the other vehicles that sank to the bottom of Robson Bight on August 20th. At the time of printing, Living Oceans was still receiving reports of various fluids from the wreckage, including fuel and hydraulic fluid, floating on the surface inside the whale reserve.

Robson Bight is the centrepiece of an ecological reserve created to protect vital habitat for British Columbia's Northern Resident orca community. Local whale researcher Dr. Paul Spong of OrcaLab reports that 58 orcas, fully 25 percent of the community, were directly affected by the spill. Orcas have no sense of smell, and several groups swam into the immediate area of the

spill when there was a very dense concentration of oil and diesel fumes near the surface. These groups, especially the A30 family, were exposed to the diesel fog for several hours during the night of the spill. The A30 family was further exposed the next day.

"Not long after the spill all the groups, except the A30s, left the area," Spong said. "We were able to follow the A30s for a month afterwards and saw no obvious signs of illness among them. Recently, we've seen another small group, which still has all its members. Just the same, toxins work their way into the body over time, and they have consequences for immune system function. The worrying period is not over."

Once Living Oceans has had an opportunity to view underwater footage of the wreckage, we plan to make recommendations to the appropriate government agencies on next steps for clean-up, and to ensure that a tragedy like this will not happen again.



Researcher Rob Williams lifts fluid off the surface of Robson Bight with a fuel spill pad.

PHOTO ABOVE: Twyla Roscovich callingfromthecoast.com; BOTTOM: Rolf Hickler





Contents

Letter from Executive Director ...	2
Wild Salmon Supporter Website ...	3
Take Action ...	3
Stakeholder and Community Engagement Project ...	4
Wave Reviews ...	5
New Staff ...	5
Creature Feature ...	6
Oil Spill Animation ...	7
Fishing Gear Experts ...	7



Healthy Oceans. Healthy Communities.

Mandate

Living Oceans Society is a non-profit research and public education organization committed to conserving marine biological diversity to ensure a healthy ocean and healthy coastal communities.

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Healthy Oceans.
Healthy Communities.

Letter from the Executive Director



Over the past nine years Living Oceans Society has grown substantially, from a one person show in my spare bedroom to the largest marine conservation organization in Canada. We now have 17 staff working in two offices running four campaigns that are improving the way the ocean and its resources are managed in British Columbia. Moreover, we are increasingly being drawn into the national scene, working in partnership with groups in the Maritimes and pursuing opportunities for conservation in the Arctic.

The growth of Living Oceans has been exhilarating. It is a thrill to see reports of our work on national TV and in newspapers, and to have our online Flash presentations “go viral” around the world. What makes me most proud of Living Oceans, though, is what makes us unique: our commitment to being in the communities that depend on the ocean and its resources for food, employment, recreation, and inspiration. We were founded in the fishing community of Sointula and here we remain, reminded everyday that people are part of the environment.

While we are acutely aware that our views differ from some coastal residents, it is our goal that the values of all people of the coast are considered as we develop our campaigns. In short, it is our community, friends and neighbours who remind us that conservation is about improving the way we live with the ocean so that our children are able to enjoy it and, if they wish, to harvest its resources.

The work of the staff this past summer confirmed that we are staying true to our roots. Living Oceans' representatives traveled to northern communities to share information about the risks associated with oil spills. They toured from Prince Rupert to Campbell River to learn about ways to engage residents in marine planning, and to nearby towns to organize demonstrations against open net cage salmon farms. We even brought commercial fishermen from B.C.

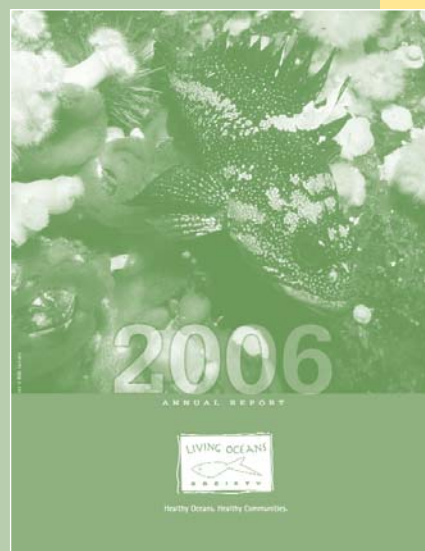
together with their East Coast counterparts—along with scientists and fisheries managers—to talk about the impacts of fishing gear on marine ecosystems. Living Oceans has shared a great deal with the people who work and live on the coast and they in turn have made our work richer, more realistic and sophisticated by sharing their values with us.

Our growth has allowed us to hire new staff in Vancouver, attracted to Living Oceans Society because of our commitment to people as well as to fish. As a result, we have a team of dedicated people working to ensure B.C. has a healthy ocean that can support healthy communities.

As we continue to mature, we will remain with our roots in the communities that rely on a healthy ocean. And judging by our experiences over the past nine years, it will continue to be a learning experience for all of us.

Jennifer Lash
EXECUTIVE DIRECTOR

annual report



Living Ocean's 2006 Annual Report is available at www.livingoceans.org

WildSalmonSupporters.com

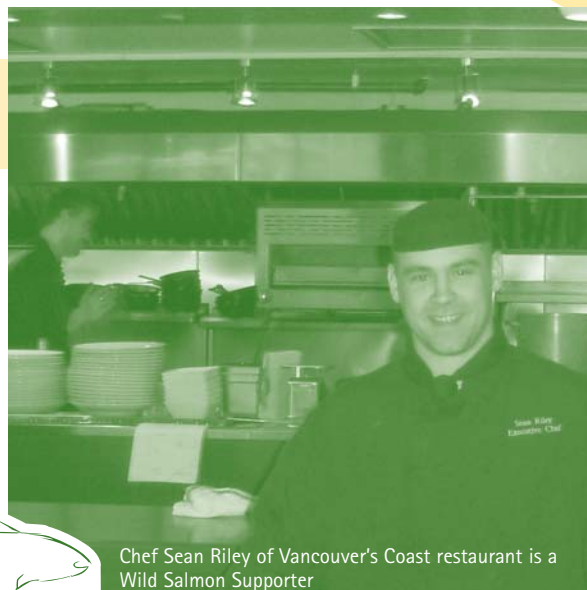
Living Oceans Society, and the Coastal Alliance for Aquaculture Reform (CAAR), have launched the Wild Salmon Supporters website (www.SalmonSupporters.com) that profiles restaurants and retailers throughout North America that have committed to stop selling farmed salmon produced in open net-cages. The new site provides information on farmed salmon impacts, new resources designed for food professionals to better understand and communicate these issues, as well as interviews with top chefs and sustainability news.

Choosing to go farmed salmon-free was easy for Sean Riley, Wild Salmon Supporter and chef of Coast restaurant in Vancouver. Sean grew up on B.C.'s coast, relying on what was available through hunting and fishing with his father.

"Our customers are totally aware of differences between farmed and wild salmon," says Sean. "There is no comparison in flavor, texture and color of our fresh wild salmon."

Diners looking for Coast and other establishments featuring alternatives to open net-cage salmon can use the Wild Salmon Supporters site's simple search engine. Restaurants and retailers that want to do more to support wild salmon will find tools to express their concerns to government and industry, and a referral form that makes it easy to spread the word and get more businesses committed to the program.

Wild Salmon Supporters is part of Living Ocean Society's and CAAR's ongoing work to use the marketplace to fundamentally change the way farmed salmon is produced in British



Chef Sean Riley of Vancouver's Coast restaurant is a Wild Salmon Supporter



Wild Salmon Supporters

Columbia. The groups are advocating a transition from the current environmentally destructive open net-cages to floating or even land based closed containment tank systems. Educating chefs and retailers about the environmental impacts and health concerns of farmed salmon, and letting consumers know they should support farmed salmon free establishments, is a crucial part of achieving this goal.

Take *action!*

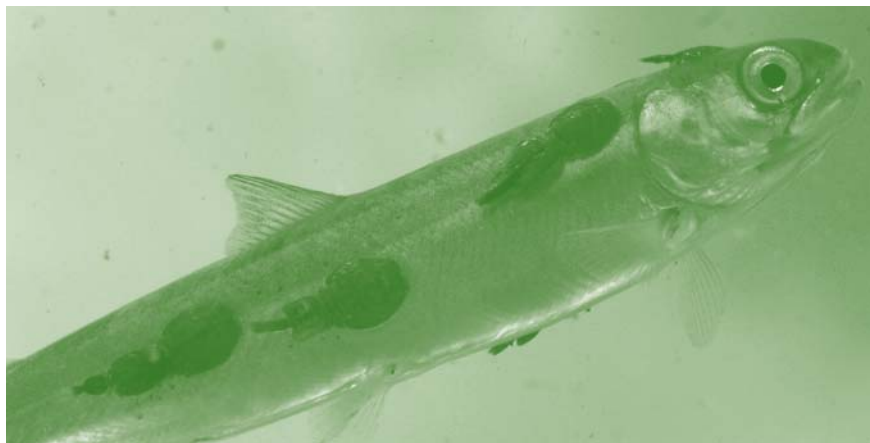
Write the B.C. government and support our Budget 2008 submission to allocate funds for a Closed System Aquaculture Innovation Fund

Sea-lice from open net cage fish farms are killing B.C.'s out migrating juvenile salmon. After months of hearings across B.C., the Legislature's Special Committee on Sustainable Aquaculture recommended a transition from open net-cage salmon farms to closed containment farming.

Write the B.C. government and urge them to take a more visionary and practical approach to salmon aquaculture by investing in the development of closed containment technology. Join Living Oceans and our partners in the Coastal Alliance for Aquaculture Reform in calling on the Province to create a \$10 million fund in the 2008 "Green Budget" to encourage closed system pilot projects.

Go to www.livingoceans.org/action_alert.shtml to download a prewritten action letter.

The Closed System Aquaculture Innovation and Development (CSAID) Fund would provide matching funds to entrepreneurs to build and operate closed containment salmon aquaculture projects. It would establish transparent environmental and economic monitoring and analysis of these projects and assist in marketing viable new technologies at home and abroad.



Benefits for British Columbians:

- Protect wild salmon and the environment
- Develop a world class, environmentally superior aquaculture industry
- Develop technology for export to the world
- Reduce conflict within coastal communities
- Respect First Nations rights and title
- Support coastal economic development



Maine Fisherman Ted Ames, flanked by LOS' Kate Willis (L) and Lara Renehan (R), toured coastal communities this past summer to spread the word about the PNCIMA planning process.



Innovative Stakeholder and Community Engagement Project a Success

On November 5-6 Living Oceans Society hosted a workshop in Vancouver that brought together over 80 representatives from around British Columbia and Ottawa to start a much needed discussion on a marine planning process for the Central and North Coasts (See sidebar below for more on the PNCIMA planning process).

The first day of the workshop featured presentations by six renowned international marine and coastal planners who described how some of the issues that we are facing in B.C. have been dealt with in other places. The planners also identified best practices from around the world to show the way forward. Turnout to the workshop was exceptional and included participants from the aquaculture, shipping, tourism and fishing industries, academia, First Nation, local and regional governments, and several provincial ministries and federal agencies.

"The PNCIMA process has needed a forum for open and inclusive dialogue for quite some time, so it was fantastic to have such a great turn out," says Kate Willis, Living Oceans Society's Marine Planning and Protected Areas Campaign Manager. "Planning processes are about bringing people with different opinions together and that can be very challenging, so I hope that this can serve as the first step towards an inclusive dialogue around this process."

The workshop was part of Living Oceans effort to get coastal communities, industries and local governments engaged in the PNCIMA process. Throughout this past summer we hosted meetings in several communities to find out from people who work and live on the coast what they see as the key issues that PNCIMA should address and to talk about the benefits of marine planning.

"People gave us great feedback," says Willis. "We have already shared our findings with DFO, the Province and First Nations, and all of the people from coastal communities who we met with."

The community meetings featured a talk by Maine fisherman Ted Ames entitled "Tales from the Atlantic Seaboard: How Local Knowledge and Science can Change an Industry." Summary reports of the stakeholder and community meetings, including Ted's presentation, are at www.livingoceans.org/library/index.shtml#planning

sign up!

for your own copy of Rising Tide and to receive the quarterly e-newsletter Oceans Update at www.livingoceans.org



thank you

Living Oceans Society would like to thank the following volunteers for their help and support: Sharon Gordon, Iris Field, Gretchen Arthur, Heidi Soltau, Denise Aleksich, Carmen Burrows, Hellen Anderson, Ivana McDougall, and Thelma Beaumont.

correction

The cover photo on our spring '07 edition was mistakenly identified as a satellite photo of Chinese shrimp trawlers. In fact they are stationary vessels which hold their double nets against the current and gather up shrimp, generating plumes of mud and sediment.

PNCIMA

The federal government has set in motion a marine planning process for the North and Central Coast of B.C. called the Pacific North Coast Integrated Management Area (PNCIMA). Fisheries and Oceans Canada (DFO) is leading the PNCIMA process and they are developing a framework for the process in conjunction with the Province and First Nations. At this point it is not known how the three levels of government intend to engage stakeholders.

Living Oceans Society believes that PNCIMA will only succeed with meaningful engagement and input from a diversity of people who live and work in the region.





Wave Reviews

One More Dead Fish *(A film by Allan and Stefan Forbes)*

Grand Prize Winner, Planet in Focus Film Festival, Toronto
Bronze Award, 2005 Columbus International Film and Video Festival

One More Dead Fish chronicles the activism of fishermen on Canada's East Coast in their effort to save the 500 year old inshore hook and line fishery. In the 1950s, Fisheries and Oceans Canada (DFO) changed the face of fishing in Atlantic Canada forever when they allowed draggers (bottom trawlers) to fish for cod and haddock on the Grand Banks. In the mid 1990s, as the cod stocks began to decline, DFO introduced a program to phase out the community based inshore fishermen while allowing the draggers to continue. *One More Dead Fish* is the story of the fishermen's battle for their livelihood and for the fish.

The inshore fishermen responded to DFO's plan by occupying federal government buildings in Nova Scotia in 1996. What started with one protest quickly spread. Seven DFO offices were taken over and DFO themselves shut down another 11 offices. One of the film's most touching scenes is the fishermen's wives describing how they gracefully moved in and occupied DFO's Atlantic regional headquarters in Halifax.

One More Dead Fish seethes with passion as the strong willed fishermen hold the offices for 25 days, asking to meet with DFO officials to negotiate a way to save the fish by protecting the inshore fishermen rather than the trawlers. The fishermen's poignant stories stand in sharp contrast to the pompous and arrogant response of John Risley, President of Clearwater Fisheries, who justifies the destruction of habitat, fish stocks and families in coastal communities in the name of economics and globalization. But the outrage at Risley's arrogance pales in comparison with DFO's cold hearted shot in the back they deal the fishermen.

This movie proves that when it comes to marine conservation it is not the number of fishermen you have on the water, but the number of fish that you take out that counts. The inshore fishermen respect the fish, their culture, and the ocean. Unfortunately, no one respected them.

One More Dead Fish is the story of one of the world's greatest ecological disasters. It is a story of bravery and betrayal. And it is a story all Canadians should know and promise to never let happen again.



Mary Lindsay, Managing Director, joined Living Oceans in August 2007. Raised on the B.C. coast, she spent many happy hours of her youth searching for the most bio-diverse tidal pool on the coast.

Mary earned her Bachelor and Master of Arts degrees in Geography from the University of British Columbia. Her long standing commitment to sustainable development led her to live and work in several different countries around the Pacific Rim. An accomplished manager, who has dedicated much of her career to capacity building with non-profit organizations, Mary remains inspired by Margaret Meade:

Never doubt that a group of thoughtful committed citizens can change the world. Indeed, it is the only thing that ever has.

When not hard at work, Mary enjoys exploring inter-tidal life, running, tennis and field hockey with her family and friends.



Carrie Robb, Geographic Information Systems (GIS) Specialist, is the newest addition to the mapping world of Living Oceans. She supports LOS campaigns by creating maps and analyzing data from coastal ecosystems. Born and raised in Vancouver, Carrie holds a Bachelor of Science degree in animal biology from the University of British Columbia and an Advanced Diploma (honours) in GIS from the British Columbia Institute of Technology.

In between contracts with both non-profit and governmental organizations, Carrie has managed to sneak off to travel through Southeast Asia, Australia and Europe. Her most recent stop was Stockholm, Sweden, where she spent a year working with Swedish natural history museums and herbaria as a part of a global effort to make biodiversity information freely available over the Internet.



Vern Sampson, Local Knowledge Project Coordinator, was born and raised on the B.C. coast. Vern enjoys meeting with people on the coast and appreciates how they share their vast knowledge of the ocean.

For 34 years he has been a mariner, sailing the coastal waters in his own boat. Vern has a strong background in the logging business and comes to Living Oceans after contracting for 21 years with the Department of Fisheries and Oceans on the Central Coast, assisting with salmon and herring management. He has also done technical work for consulting firms involved in fisheries programs.

Vern sold his boat last summer but has kept a small work skiff. He is often seen prowling the docks looking at boats.

LOS Welcomes New Staff

Living Oceans Society has grown into the largest marine conservation organization in Canada with the addition of several staff. Meet our three newest people.

Northern Resident Orcas

Remember the first time you saw an orca in the wild? It left an impression of power and playfulness that remains with you today. If you saw the orca off B.C.'s coast, likely it was a resident whale and it was probably swimming with other orcas. There are three distinct groups of orcas that grace our coast: the transients and the Northern and Southern Residents. Transient orcas' movements are unpredictable and they spend more time in the open Pacific, often traveling in groups of five or fewer whales.

We know much more about the residents because they live closer to the coast, returning to the same areas year after year in family groups. This makes them easier to study and there has been excellent research done on the roughly 200 members of the three Northern Resident "clans" over the past few decades. The clans are further divided into 16 "pods" that are lead by matriarchs. Pods can be made up of as many as four or five generations.

Northern Residents range from midway up the east and west coasts of Vancouver Island to just north of Prince Rupert. The centre of their range is Johnstone Strait where they spend their summers, drawn there by the returning salmon (chinooks are their favourite). This includes the Broughton Archipelago where in 1993, salmon farms began sending out underwater noise to ward off seals and sea lions. The orcas were driven away too and have stayed away even though the salmon farmers shut off the noise nine years ago.

Underwater noise affects orcas' survival because they hunt using echo location, sending out clicking sounds that bounce off their prey and other objects. Orcas are very vocal, especially when hunting, taking advantage of the fact that salmon have poor hearing. Each clan has a dialect and each pod shares common calls.

Although the whales may live as long as 80 years, their life expectancy is lowered by the sad fact that nearly half of all orcas die before they are six months old. Because the females give birth on the average of once every five years, their population grows very slowly. Since 2000 it has declined by about seven percent, caused mainly by pollution from humans, particularly Polychlorinated biphenyls (PCBs). Orcas are at the apex of the food web and the toxins in their prey accumulate in the whales' bodies, lowering their reproductive rates and damaging their immune systems. Declining salmon runs may also have contributed to fewer orcas.

The number of orcas is in decline, but their popularity is at an all time high. Eager tourists flock to whale watching tour operations in the thousands to see the West Coast icon up close. It's a far cry from a generation ago when orcas were shot on sight as unwelcome competition for salmon. In fact, in 1961 DFO installed a machine gun at Seymour Narrows just north of Campbell River as part of a planned cull that was called off when the whales shifted their foraging pattern.

You can do your part to protect the Northern Resident orcas by reducing or eliminating the amount of chemicals you use around your home like household cleaners or fertilizers. Whether you live in Saskatchewan or Sointula, reducing the use of chemical products is better for the planet and better for the whales.

A juvenile orca swims close to its mother on the Central Coast. Calves are dependent on their mothers for about two years.

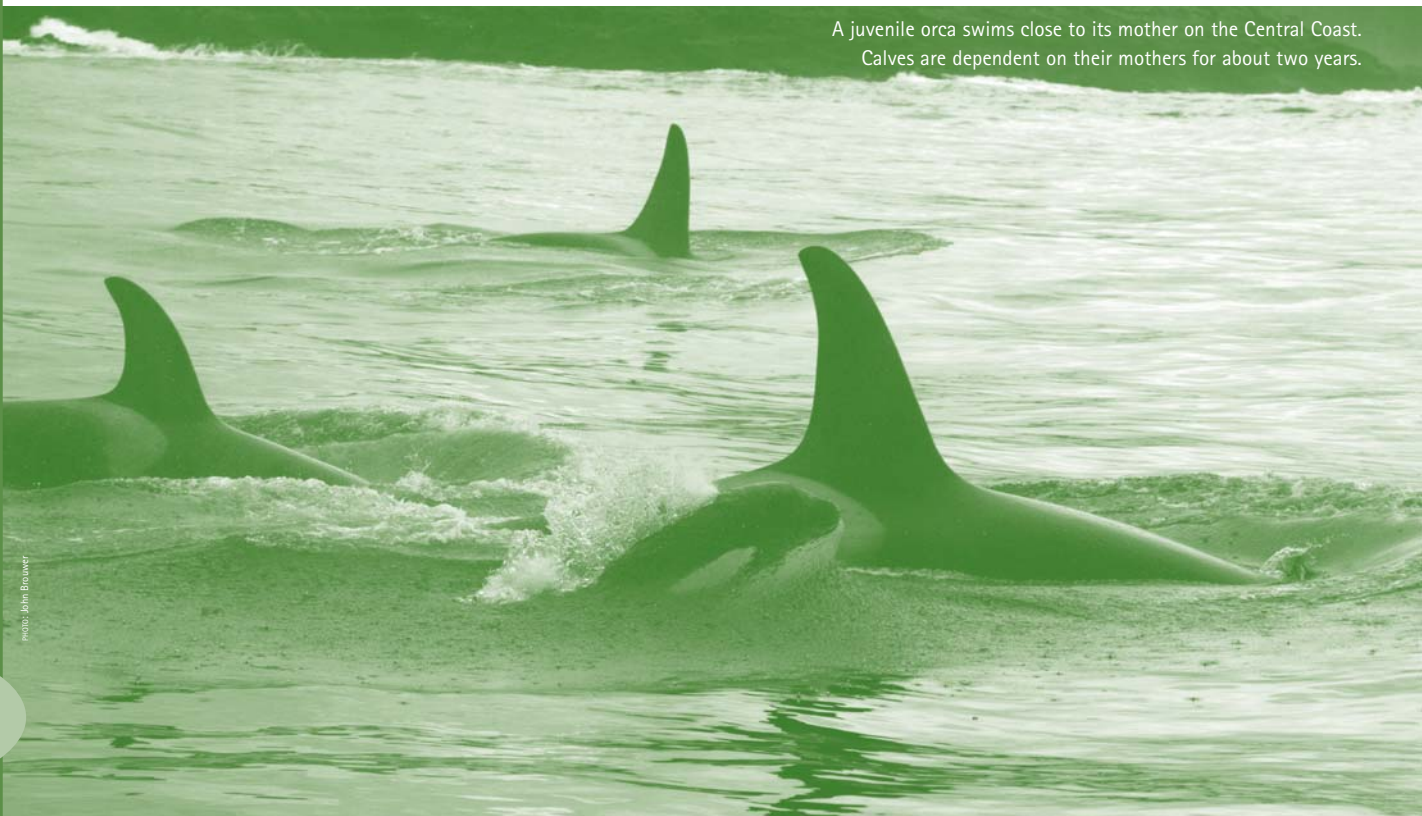


photo: John Brainer

Oil spill animation spreads across country

Living Oceans took our new oil spill model on the road from Haida Gwaii to the House of Commons to show the potential impact of oil spills on the B.C. coast. In late October, Energy Campaign Manager Oonagh O'Connor travelled to North Coast communities to present the spill model and answer questions about where oil spills would be likely to hit our coast and the damage that could result. In November, LOS presented the results of the scientific analysis to decision makers in Ottawa.

"Living Oceans' scientific modelling of oil spills shows such potential for devastation that we're sharing our findings with the people that would be most affected by a spill and the people who can keep the oil tanker ban in place," says Oonagh. "There is considerable pressure to open the coast to oil tanker traffic and the model will help inform coastal residents of the potentially severe consequences of inevitable oil spills, both small and catastrophic in scope.

Over the past couple of years several oil and gas companies have proposed pipeline projects through northern B.C. as part of the expansion of the Alberta tar sands. The pipelines would result in tankers travelling to Kitimat or Prince Rupert. If all the proposals were to proceed over 300 tankers per year would be navigating through the narrow channels of B.C.'s coastal waters.

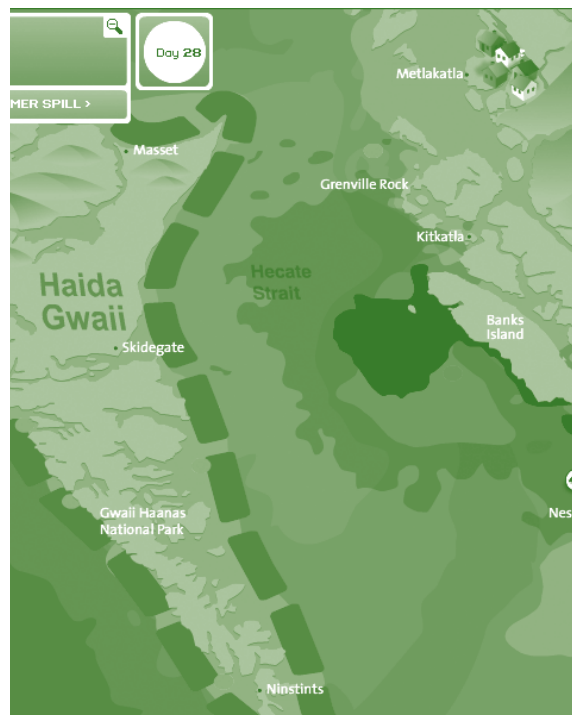
It is more important now than ever that the ban on tankers becomes permanent legislation that is not vulnerable to the changing whims of party politics.

The voice of experience

Joining Oonagh on her coastal tour was Professor Richard Steiner from the University of Alaska who spoke from first hand experience about the impacts of the Exxon Valdez tanker spill in Prince William Sound, Alaska and the risks associated with tanker traffic.

"In Alaska, we learned our lesson the hard way," says Professor Steiner, a Conservation Specialist for the University of Alaska Marine Advisory Program. "Many promises were made to Alaskans by industry and government in the early 1970's that state of the art technology would ensure not a single drop of oil would be spilled, but as we saw with the Exxon Valdez spill, the promises were quickly broken."

The spill happened in 1989. Today Prince William Sound's beaches are still marred with oil. Most of the injured fish and wildlife populations have begun to recover, yet some species remain on the yet to recover to list, nineteen years later. Exxon continues to appeal the \$5 billion punitive judgment imposed in 1993.



The oil spill model generates oil spill scenarios from oil tankers and a drilling platform in B.C.'s coastal waters, taking into account the amount and type of oil spilled, and predicts its movement based on water currents, tides winds and other influential forces. This same software is used by response crews during actual spills to determine where clean up efforts should be directed.



To see the online interpretation of the scenarios go to www.livingoceans.org/spillfreecoast

Fishing gear experts gather in Lunenburg

Nineteen fishing gear experts from both Canadian coasts met at a workshop in Lunenburg, Nova Scotia on October 12th and 13th to apply their knowledge to a study on the ecological impacts of fishing gears used in Canada. Living Oceans Society is collaborating on the study, titled How We Fish: Ecological Impact Analysis of Canadian Fishing Gears, with the Ecology Action Centre in Halifax, the U.S.-based Marine Conservation Biology Institute and researchers from Memorial University.

How We Fish researchers hosted the Lunenburg workshop to fill more gaps in the recorded knowledge of Canadian fisheries. The experts, who came from the fishing industry, academia, Fisheries and Oceans Canada and environmental organizations, also reviewed the information How We Fish researchers have compiled to date. Gear impact studies have been done in other countries but this is the first comprehensive Canadian study comparing the ecological impacts of fishing gears.

Contrary to other progressive nations, the Canadian government considers the ecological impacts from all fishing gears as equal and manages them as such. However,

fishing gears can differ in impact between gears, coasts, and regions. Many other factors can affect gear impact such as target species, area, season, and depth.

Different gears can be used to catch the same species. For example, groundfish (fish that live on or near the bottom) can be caught using an unselective bottom-tending method such as the bottom trawl, by long fishing lines with hundreds of hooks on each line (bottom longlines), or by fish traps. How We Fish compares the ecological impacts of fishing gear types and looks at how they might change depending on how and where these gears are deployed.

The results from the Lunenburg workshop and a survey under development will be published in a final report due to be released in summer 2008.

Support Living Oceans Society Give to The Oceans Fund

The Oceans Fund is a special fund set up at Tides Canada Foundation to support the charitable work of Living Oceans Society. Donations of \$25 or more are eligible for a tax receipt. Please help conserve our ocean by contributing to the Oceans Fund through one of the following methods:

1 BY CHEQUE

mail this form with cheque to
Tides Canada Foundation
680 220 Cambie St, Vancouver BC V6B 2M9.

Make cheque payable to **Tides Canada Foundation.**

Please note on your cheque that your donation is for the **Oceans Fund.**

2 BY CREDIT CARD

Complete this form, including your credit card number. Please note if you would like to make a one-time or monthly donation.

Monthly donors will receive an annual tax receipt.

3 BY PHONE

Call Living Oceans Society at
250-973-6580.

TAX RECEIPTS will be issued by Tides Canada Foundation within 6 weeks of receipt. For more information about Tides Canada Foundation visit www.tidescanada.org

YES!

I would like to donate to **The Oceans Fund** at Tides Canada Foundation.

☐ I am enclosing a cheque for \$_____

Please make cheque payable to Tides Canada Foundation; note on cheque that it's for "Oceans Fund."

☐ I'd like you to process my donation on my credit card. Please charge:

☐ \$_____ each month **OR** ☐ \$_____ once

Start date DD / MM / YY

Charge my ☐ Visa ☐ Mastercard

Card# _____ Expiry date MM / YY

Cardholder name _____

Signed _____

Name _____

Address _____

Telephone _____

Email _____

Thank you for supporting the charitable work of Living Oceans Society. A charitable tax receipt will be sent to the above name for donations \$25 and over. Tides Canada is a registered Canadian charity: BN 86894 7797 RR0001.

Please return this form to: Tides Canada Foundation, 680-220 Cambie Street, Vancouver BC, V6B 2M9. **Questions?** Please call Living Oceans Society at 250-973-6580

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