



# rising tide

Healthy Oceans. Healthy Communities. [www.livingoceans.org](http://www.livingoceans.org)

FALL 2010

## Three new closed containment projects blazing the trail

Thanks to your years of support, Living Oceans Society and our allies are beginning to see real progress in our work to get the industry to go green and switch from net cages to closed tanks. It appears that some of British Columbia's salmon farmers have realized that closed containment is the way of the future if the industry wants to continue doing business in this province. The largest salmon farmer on the coast, Marine Harvest Canada (MHC), has hired engineers to select a site for a closed containment facility that they say will grow 200 tonnes of farmed salmon in its first year, with the potential to expand production to 10 times that amount. Living Oceans and our partners in the Coastal Alliance for Aquaculture Reform will work closely with MHC in the development and assessment of the new facility which is slated to begin construction in June 2011.

An industry leader in floating closed containment technology, Agrimarine, has partnered with the Middle Bay Sustainable Aquaculture Institute (MBSAI) on a project located in Campbell River, B.C. The Middle Bay Project's first commercial scale tank was recently delivered and, once assembled, will be stocked with chinook salmon fingerlings.

Meanwhile, the Namgis First Nation in Alert Bay are moving forward with a land-based re-circulating containment system after receiving funding from the provincial and federal governments, with a matching \$110,000 pledged by the Gordon & Betty Moore Foundation. "Closed containment is being done all over the world," Namgis Chief Bill Cranmer said. "And so we're trying to demonstrate to everybody that it is a viable business."

Now the Namgis, Marine Harvest and all other closed containment proponents need the federal government's support ■

## Time for government to latch onto solutions



ABOVE: Federal funding for closed containment tanks could put an end to lice-infected salmon fry. RIGHT: John Reynolds of Agrimarine with a closed containment tank similar to the model that will be used to grow chinook salmon at the Middle Bay Project in Campbell River, B.C.



PHOTO: Corey Peet

## Take *action!* on Net Cage Salmon Farming

Scientific research clearly demonstrates that net cage salmon farming degrades nearby wild fish populations. **SOLUTION:** Grow farmed salmon in closed tanks to prevent escapes and the spread of disease and parasites.

Now is the time for Canada's Conservative government to step up and support coastal communities AND the environment by allocating

significant funding for closed containment aquaculture projects in the upcoming budget. Closed containment projects need the backing of the B.C. Conservative Caucus.

Send the enclosed postcard—no postage needed—to Minister Stockwell Day, leader of the B.C. Conservative Caucus. Ask him to make closed containment a priority in his government's 2011 Budget.

Leaping sea lice on page 3...



## Letter from the Executive Director

Last July, I read an article in the journal *Nature* that had a profound affect on me. A team of researchers have discovered that phytoplankton levels around the world have plummeted by about 40 percent since 1950. The rise in ocean temperatures caused by climate change is linked to the decline of these microscopic plants that produce half of the world's oxygen. Phytoplankton are also the foundation of the food web, eaten by the tiny fish and invertebrates that in turn feed everything from salmon to whales. Knowing that phytoplankton are declining at a rate of one percent every year made it very clear to me that we are running out of time and we need to take action now.

All the work that Living Oceans Society is doing to care for the ocean could be in vain if climate change is allowed to escalate. And so, in my capacity as Executive Director at Living Oceans Society, I decided

to also take on the role of Canadian Coordinator of the Tar Sands Campaign. The tar sands are the fastest growing source of greenhouse gas emissions in Canada, they perpetuate our dependence on oil, and make it difficult, if not impossible, for Canada to develop effective climate change policies.

I will continue steering Living Oceans Society's many projects while I work with the Tar Sands Campaign, a network of Canadian and U.S. conservation groups who are spearheading a battle against climate change. I see this as a great opportunity to contribute to a healthier ocean and moreover, a healthier planet.

Jennifer Lash  
Executive Director



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Living Oceans Society is working to ensure the long-term health of the ocean and coastal communities on the Pacific Coast of Canada. We believe that people are part of the environment and that we can build sustainable communities by protecting coastal ecosystems today.

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# PNCIMA Notebook

## Strange bedfellows reach consensus at Prince Rupert meeting

The potential for conflict was high as we all gathered around the planning table in Prince Rupert for the first full meeting of PNCIMA stakeholders: fish farmers and conservationists, shipping companies and wilderness guides, wind farmers and commercial fishermen – everyone with a strong interest in the future of B.C.'s Central and North Coast and often with goals that are in direct competition. It could have been an explosive mix but instead we reached consensus on a shared concern right from the start.

We had gathered to talk about our common interest in the ocean waters dubbed PNCIMA (pronounced pin-SEE-ma), the Pacific North Coast Integrated Management Area. One person after another stood up and said that more government support was needed for the PNCIMA planning process, and that any money invested by Ottawa would deliver benefits that would exceed the costs.

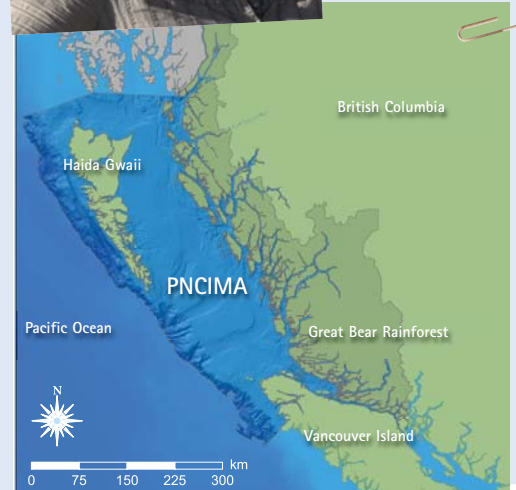
As it is, we're very lucky that the Moore Foundation has offered to step forward and make up the shortfall, allowing Fisheries and Oceans Canada's (DFO) to move ahead with the two year PNCIMA planning process, despite being unable to fully finance it.

Everyone in Prince Rupert that day agreed to send a joint letter to Gail Shea, Minister of Fisheries and Oceans, telling her that since we're all investing our time and energy, the federal government should show its commitment by literally 'buying in' to PNCIMA.

Living Oceans has bought in to PNCIMA for the last four years and it was great to find out that all the other stakeholders want to work together for our common best interest: Healthy oceans and healthy communities. ■



LEFT: Kim Wright, Living Oceans' Marine Planning Campaign Manager is representing the conservation sector at the PNCIMA talks.



## fact

Coho are a staple of B.C.'s sport fishery. Every year anglers spend more than \$480 million in the province – supporting 7,500 full and part time jobs.

## Leaping sea lice latch on to coho

Coho have become the third salmon species in the Broughton Archipelago to fall victim to sea lice infestations according to a new study published in the *Journal of Applied Ecology*. Scientists studying sea lice have discussed seeing the lice "jump" on to coho just before they consume lice-infected juvenile pink salmon. Now a new study reports the number of coho infected by sea lice has increased by two to three times around Broughton salmon farms.


A second paper published in the same journal found that coho salmon returns to the Broughton from

1975 to 2007 were seven times less able to produce offspring than unexposed coho populations, due to recurring sea lice infestations associated with salmon farms. In one year of heavy infestations, the study found coho produced only 0.75 fry per adult.

Lice infected coho, farm waste on the ocean floor, disease and escaped farmed salmon could soon be distant, unpleasant memories—if the federal government can be convinced to back closed containment salmon farming in the 2011 Budget ■

# photo contest winners

Our Ocean Exposures Photo Contest wrapped up on September 30<sup>th</sup> and wow, what an inspiring competition this has been! Thank you so much to everyone who contributed. Your images will help us tell the story of our oceans and why it is so important that we protect the marine environment. Over 450 pictures were submitted from around the world, some from as far away as Zanzibar and as close to home as the wharf in Sointula, B.C.

 We'll be using the submissions on our web site and in our publications. In the mean time, you can see many of the photos on flickr [www.flickr.com/photos/51793058@N02/](http://www.flickr.com/photos/51793058@N02/)

Congratulations to our winners! Discovering Anemones by Janna Nichols won in the Ocean People category and Dolphin's Dinner by Paul Cowell took the prize for Ocean Ecosystems. They have each won a digital camera.



On this particular trip to the beach, I was looking forward to showing my grandchildren (who live in inland Washington) the critters that live in the tide pools at the ocean's edge. It was our first time tide pooling together, and my five year old granddaughter, Izabella, was delighted to discover the green proliferating anemones and their squirting reaction to her touch! It was also so interesting to see her reaction when first setting foot on the beach – she threw her arms in the air and began running

around like she was free as the wind, whooping and hollering excitedly! I admit I feel like that too.

**Janna Nichols** is a native of the Pacific Northwest and grew up exploring tide pools and playing in the water of the San Juan Islands and the Washington coast. She learned to dive in her forties, instantly falling in love with the unusual fish and invertebrates in her "backyard."

## Discovering Anemones *by Janna Nichols*





## Dolphin's Dinner *by Paul Cowell*



Dolphins, sharks, whales and other animals have a feeding frenzy every year when millions of sardines migrate north in the cold currents pushing up the eastern coast of South Africa. I was at seven meters, trying to take all the action in, focusing and composing shots with my underwater setup. As the dolphins “rounded” up a ball of sardines and guided them to the surface, the sharks would opportunistically sneak from the side and bottom of the ball to take their feed. Diving from above, sharp beaked gannets hit the water like torpedoes, sometimes descending 20 meters to catch multiple sardines.

I feel unbelievably lucky and privileged to have witnessed this amazing natural event. Sardine activity has


been dropping the past five or six years, maybe as a result of overfishing, or maybe due to the changing water temperature. This year we were incredibly lucky, with the expedition leader claiming that this had been the best activity since 2000. Nobody knows exactly how long the sardine migration will go on for. I just hope that for the future generations this annual extravaganza continues.


**Paul Cowell** has been fascinated with animals and ocean life for as long as he can remember. As a child, Paul often fell asleep holding the David Attenborough book, *Life on Earth*, whilst drifting off into a deep sea dream. Paul lives in Singapore and his favourite place to dive is Cebu in the Philippines.

## Our Marvellous Photo Contest Judges

Thanks to our amazing contest judges, Andrew S. Wright and Brent Wellander. Both had their work cut out for them as there were so many spectacular photos to choose from.

“This was a tough exercise because there were quite a number of unique images which caught my eye,” said Brent.

 Andrew, who judged the Ocean Ecosystem photos, is very passionate about increasing conservation awareness for much of B.C.'s spectacular but threatened eco-systems. He is based in Vancouver, B.C. | [www.cold-coast.com](http://www.cold-coast.com)

 Brent, of Kootenay Nature Photos, judged the Ocean People images. Brent is a nature photographer based in the Kootenay region of B.C. His photos are nature-based, and include birds, landscapes and abstracts. | [www.kootenaynaturephotos.com/blog/](http://www.kootenaynaturephotos.com/blog/)

# Tar sands to tankers pipeline: *Who wins?* WHO LOSES?

Now that the Enbridge Northern Gateway pipeline project is wallowing through the government's environmental review process, it's a good time to consider who gains and who loses if the tar sands to tankers megaproject is allowed to proceed. It's pretty clear who the winners would be: Big Oil, Asian industry, the handful of construction workers who will have jobs for a few years, and Enbridge, a company whose bread and butter is transporting oil by pipeline across North America. No surprises there.

What's more interesting is a short list of those who stand to lose. Aside from those you would expect to find on the list—coastal communities, First Nations and wildlife—are the investors hoping to reap a financial windfall from the project. There is clearly an appetite for investment in the pipeline among those

who have no ethical concerns about where they sink their money. Enbridge shares on the Toronto Stock Exchange have risen steadily since mid May, regardless of the fact that since then, the company has suffered two ruptured pipelines in the U.S. that have driven people from their homes and fouled a river system. Still, profit is profit and there is money to be made with Northern Gateway—or is there?

On October 5th, ForestEthics, an organization that Living Oceans works closely with on the Northern Gateway issue, released a report warning investors that Enbridge is essentially shoving money down a rat hole for a project that will likely never go ahead. The report—*Enbridge Northern Gateway Pipelines: Community Opposition and Investment Risk*—highlights the risks facing the controversial

project, particularly legal challenges by First Nations and political risks.

Should the project be given the green light by Ottawa, legal challenges from B.C. and Alberta First Nations will stop Enbridge for decades. The Northern Gateway project would run through at least 52 First Nations communities. In B.C. most First Nations hold Title and Rights to their unceded territories and they are determined to govern and protect their lands. From Vancouver Island to Haida Gwaii and into the interior, First Nations have vowed to stop the pipeline and the tankers that would carry the tar sands crude to Asia. First Nations in north western B.C. have a successful record in blocking resource development projects, particularly those that threaten wild salmon and fail to adequately accommodate their Rights and Title; Northern Gateway's twin pipelines threaten both.

Meanwhile, 80 percent of British Columbians oppose tanker traffic in B.C.'s coastal waters. The federal Liberals say that they will legislate a permanent ban on oil tankers on the North Coast if they are elected to power and two New Democrat MPs have private members bills before parliament proposing a ban. In September the Union of B.C. Municipalities passed two resolutions, one supporting a permanent ban and the other opposing pipeline transport of tar sands oil across B.C. to the coast. Given the precarious hold on power that Stephen Harper's Conservatives have, investors should be aware that it is far from a sure thing that oil tankers will be allowed to sail the waters adjacent to the Great Bear Rainforest, should the pipelines ever be built.

Another group who stand to lose is Canadian taxpayers who in all likelihood will pay for an oil tanker spill. When there is a spill (and a spill of 10,000 barrels or more is predicted to happen once every 12 years) Enbridge will not be legally responsible nor obliged to foot the bill. The tanker owner's insurance will pay up to a maximum \$143 million for clean up and compensation, depending on the size of the ship. After that, international oil spill funds and a mere \$154 million from a special Canadian oil spill fund kick in to cover some remaining costs, but only up to \$1.3 billion. While that may seem like a lot of money, consider that the price tag for the Exxon Valdez oil spill may be as high as US\$9.5 billion; and so far, cleaning up and compensating for the BP Gulf oil spill already has a US\$33 billion price tag.

So when Enbridge executives promise Canadians a pot of gold in return for running their notoriously leaky pipelines across the majestic Rockies and through the Great Bear Rainforest, tell them we're not willing to pay for their shot-in-the-dark project or to clean up their mess when it fails ■



LEFT: Coastal First Nations will not allow tankers carrying crude oil from the Alberta tar sands to transit their lands or waters. ABOVE: If Enbridge's Northern Gateway Project proceeds, at least 225 supertankers each year will cross over the Inside Passage and pass through the confined channels adjacent to the Great Bear Rainforest on B.C.'s North and Central Coast.



# North Pacific Fisheries Commission Coming



PHOTO: Dale Sanders

fish do not pay much attention to international boundaries. Some 'Canadian' fish wander outside the 200 mile limit into international waters where they can be fished by vessels from other countries. When high-seas fisheries on straddling stocks are unregulated, the benefits that Canada achieves from domestic fisheries management can come undone. International treaties and regional management bodies may sound a bit dry and technical but are worth paying attention to. They are often vital to protecting the future health of our fish and our communities.

An infamous example of the high seas problem occurred in the 1980s when Japanese fleets used miles-long drift nets to target tuna, squid and salmon in the North Pacific. In addition to the nearly unbelievable damage that this did to dolphins, turtles

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Rockfish are one of the commercially important fish that straddle the boundary between international waters and Canada's Exclusive Economic Zone.

## staff



Jake Etzkorn



Maria Espinosa-Romero



Solona Armstrong



Lara Renehan



Tavi Parusel

## new staff

**Jake Etzkorn** – Joining our Sointula office is Jake Etzkorn, our new Local Marine Planner. Jake grew up at various light stations around B.C. and worked as a light keeper and commercial fisherman in his teens. Jake graduated with a B.Sc.in Biology from Vancouver Island University, where he specialized in ecology and environmental chemistry. Since then Jake has worked as a technician at the Pacific Biological Station in Nanaimo, and as a park warden at Robson Bight Ecological Reserve for the past three summers. When not at work, Jake spends his time SCUBA diving, surfing and exploring the islands with his wife.

**Maria Espinosa-Romero** – Also joining us in Sointula is research assistant Maria Espinosa-Romero who is assessing the ecosystem based management capacity of

B.C.'s fisheries. Maria is from the Yucatan Peninsula in Mexico. She came to B.C. to do her Masters on resource management and environmental studies at UBC. Before then, Maria worked on coastal development and fisheries management projects run by Mexican NGOs and the federal government. Maria loves living close to the ocean and enjoying new experiences in B.C.

**Solona Armstrong** – Solona is redesigning the Living Oceans web site. She moved to B.C. in 2004 from her hometown of Montreal. She has adopted the ways of simple living including three years spent off the grid. Solona studied a Web Technology program and has held the title of Webmaster for a variety of companies including a power company and several in the fashion industry. She now runs a green Web Design business and has chosen to devote her work to environmentally responsible companies and nonprofit organizations. When she's not geeking out on the

computer, Solona likes cycling, dancing, experimenting with raw food, natural building and creating community. She also moonlights as a singer/songwriter, vocal coach and spoken word poet.

## goodbye

**Lara Renehan** is leaving after three years as our Local Marine Planner in Sointula so she can devote more time to her young family. We'll miss Lara's laughter and the dignified determination that she displayed while working as the face of LOS in communities up and down the coast.

Film maker **Tavi Parusel's** year-long internship has come to an end. Tavi boosted our video capability during his year with LOS, creating the fine short films you can see on our youtube channel ■

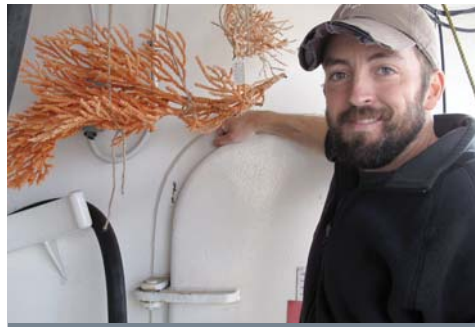
## Northern Pacific Fisheries continued

and many other species that were caught as 'bycatch' in these fisheries, the high seas drift net fishery hurt U.S. and Canadian salmon fishermen by catching salmon that would have otherwise returned to U.S. and Canadian waters. Until the UN banned drift net fishing in international waters in 1992, the fishery was unregulated.

Today, there are still unregulated fisheries that take place in the international waters of the North Pacific. Some of these fisheries may take fish that straddle Canada's 200 mile limit. For example, DFO has presented information that suggests that a Russian longline vessel has recently been fishing sablefish and rockfish just outside of our territorial waters. To address this and similar problems, Canada has entered into treaty negotiations to set up an organization to manage fisheries in the international waters of the North Pacific. The treaty will likely cover any North Pacific high seas fisheries that are not currently managed by existing means.

Living Oceans is taking part in stakeholder consultations with Fisheries and Oceans Canada (DFO) as the treaty talks progress.

"We expect Canada to show leadership in this multi-national effort," said John Driscoll, Living Oceans' Sustainable Fisheries Campaign Manager.



John Driscoll, Sustainable Fisheries Campaign Manager.

"We hope to see a sound treaty that demonstrates a commitment to science-based catch levels and 100 percent observer coverage, and that prioritizes the identification and protection of vulnerable marine ecosystems, such as coral and sponge-dominated areas."

The other countries involved are the U.S., Russia, Korea, Japan, and Chinese Taipei. China is attending sessions, and Mexico has been invited. Once formed, the new organization will be called the "North Pacific Fisheries Commission." Living Oceans will do our utmost to ensure the treaty is strong and meaningful and that the commission is structured to enforce it effectively. We'll keep you posted and may ask for your help as discussions move forward ■



## to Living Oceans Society

**Every dollar you donate to LOS is \$2 for the fish**

A generous supporter has challenged us to raise \$150,000 to protect the ocean. If we meet this challenge, our friend will match the donations, providing up to \$300,000 for ocean conservation.

# YES!

## Support Living Oceans Society

**1 Donate directly** to Living Oceans Society, (if you do not require a tax receipt).

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**2 Donate to Oceans Fund** at Tides Canada Foundation if you would like a tax receipt (min \$25).

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The Oceans Fund is a special fund set up at Tides Canada Foundation to support the charitable work of Living Oceans Society. Tax receipts will be issued by Tides Canada Foundation within six weeks of receipt. For more information about Tides Canada Foundation visit [www.tidescanada.org](http://www.tidescanada.org).

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