

The newsletter for stewards of salmonids and their habitat • Volume 16 • Number 1 • Winter 2009

BC Marine Mammal Response Network If you live or work along the coast, we want YOU!

by Lisa Spaven

The BC Marine Mammal Response Network is led by DFO, but also draws on considerable outside expertise and resources. We strive to assist marine mammals in distress, take action in the case of inappropriate or illegal human activities, and investigate threats that may impact survival at the individual, population and species levels.

Our goal is to develop a coast-wide network involving various jurisdictions, NGOs, researchers and interested individuals. Plans are afoot to offer marine mammal species identification training and recruit volunteers willing to help out in the field (attending the scene of a dead animal, confirming species, taking photos and measurements, for example).

Until they are trained, responders should avoid coming in contact with marine mammals in any condition. If you encounter a marine mammal that is dead, appears to be in distress, or is being disturbed in some way, please call DFO's toll-free Observe Record Report (ORR) hotline to make a report: 1-800-465-4336

Until they are trained, responders should avoid coming in contact with marine mammals in any condition. They may be diseased, and even small, weak animals can thrash and become aggressive if approached. Despite the best of intentions, no actions should be taken without first contacting the reporting

hotline, and obtaining advice and approval from the Marine Mammal Response Coordinator.

By reaching out, we hope to raise awareness and encourage reporting, especially in the more remote and northerly areas of our province. This will give us a clearer picture of the scope of threats to marine mammals, in particular those listed under the *Species At Risk Act* (SARA).

Together with the Vancouver Aquarium, we have created a manual for responders who attend a scene. It details where to forward reports, what information is important, safety precautions and more. Appendices include a species identification field guide, information on common marine mammal issues, and examples of the data collection forms we use.

The next stage is a series of training sessions throughout B.C. for enforcement agencies, local jurisdictions and wildlife groups, as well as public talks to encourage recruitment of responders. I'm hoping that *Streamtalk* readers can help me get the word out to mariners, coastal communities, First Nations, lodges, fishermen, charter operators, ecotourists, coastal pilots and divers, to name but a few.



This grey whale was in poor condition when found stranded near Victoria. Despite the best efforts of responders, it did not survive. Results of a necropsy will help determine the cause of death.

Please encourage those interested to contact me at lisa.spaven@dfo-mpo.gc.ca or 250-756-7230 for more information or to become network members and volunteer as primary responders.

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Tynehead Hatchery raises the roof

by Lorene Meyer

This spring, around 1,000 guests at Tynehead Hatchery's annual Salmon Send-Off were treated to a special announcement. The Serpentine Enhancement Society (SES) had reached its goal and had raised the funds for a much-needed new roof and gutters, valued at \$40,000.

This achievement is only the latest in 20 years of stewardship for the SES. Work began in the early '80s when Clare Backman, then a young scientist studying at SFU, had a dream to rehabilitate the salmon run of the Serpentine River. He taught

Major sponsors for the roof project include:

BC Transmission Corporation Pacific Salmon Foundation Province of British Columbia Pacific Parklands Foundation Metro Vancouver Parks City of Surrey Lions Club Malaspina College Advantage Gutters others the skills necessary to raise salmon. Initially, brood stock were captured in a nearby farmer's creek, raised and released. Later, several members secured a land lease arrangement with Greater

Vancouver Regional Parks and put second mortgages on their homes to raise funds for a hatchery, which was built in 1998.

Located in Surrey's Tynehead Regional Park, the hatchery raises chinook, chum, coho and steelhead. During the last 20 years, the Serpentine River has changed from being not much more than a ditch with a few salmon to a vibrant river with thousands of returning spawners. The SES has played a crucial role in the transformation through their hard work and determination. Over 250,000 salmon fry are released into the river each spring.



A thing of beauty! The new roof and gutters were installed over the past summer.

The passing on of stewardship skills is an important part of the SES philosophy. Veteran volunteers work with new recruits to train them in running the system; and last year, 75 classes, led by education director Chris Hamming, attended Salmonids in the Classroom activities at the hatchery.

The SES is very appreciative and thankful for the support of the community. Thank you to all the volunteers. Here's to another 20 years!

For more information about the SES and Tynehead Hatchery visit www.tyneheadhatchery.ca

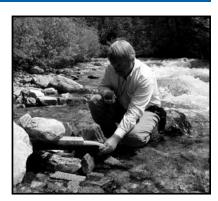
Salmo streamkeeper wins environmental award

Congratulations to Gerard Nellestijn, who has won a Canadian Environmental Award in the restoration and rehabilitation category for his work with the Salmo Watershed Streamkeepers Society.

When Nellestijn settled in Salmo fulltime in 1997, he became coordinator of the fledgling society. His goal was to supply a focus for community members keen to rehabilitate area waterways affected by many years of logging and mining. Using the Pacific Streamkeepers Federation handbook as a guide, and involving local young people as fieldworkers, the

society conducted surveys and made restoration plans. "Today," he says, "some of those kids have degrees in environmental science."

Nellestijn's ability to inspire community action has resulted in the cleanup of two tailings sites, the creation of a watershed planning team and a fish-sustainability plan. "We took a creative approach," he says, "and now we have industry, government and landowners who are in tune with the environment. It's the social connection and a sense of stewardship that are moving things along."



Gerard monitors fertilizer discharge on a stream fertilization project in Sheep Creek.



Action needed now

We need policies to protect Pacific salmon from global warming

by Gordon Ennis

Mark Twain once said that everybody talks about the weather, but nobody does anything about it. The same could be said for climate change and its impacts on fish and wildlife. But the Pacific Fisheries Resource Conservation Council wants to see more action to help Pacific salmon adapt to global warming before it's too late.

The Council has been pressing governments to adopt both structural and policy adaptation strategies to help salmon survive global warming. Council chair Paul LeBlond describes wild salmon as "a valuable gift from the sea," and is urging fisheries managers to re-balance the approach in British Columbia to ensure the future of Pacific salmon in light of new risks related to climate change.

Last October, the Council released a report, available at www.fish.bc.ca, calling for action to help salmon adapt to climate change.

Migrating salmon are very sensitive to warming of river waters and changes

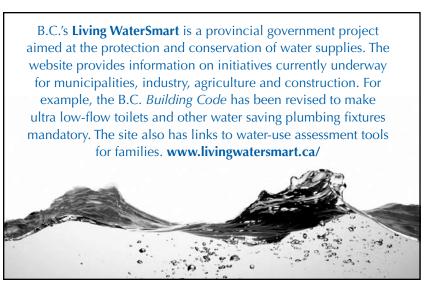
in stream flow. Low water flows in the late summer can block access to spawning grounds and winter flooding can wash eggs out of the gravel. Climate change is impacting the salmon's food supply and the abundance of their predators. Actions are needed to protect and restore conditions that will enable Pacific salmon to both survive and thrive.

Structural measures such as engineering or technology-focused innovations can help salmon adapt, mitigate the effect of changes in habitats, compensate for climate-induced losses to salmon, or restore habitats. This can include installing fish ladders or siphons, or putting in water storage to mitigate changes in temperature or flow rates. Lower tech solutions such as better protection of streamside vegetation is another tool to use.

Policies should also be put in place to enhance the availability of water for the benefit of salmon. They should encourage positive human behaviour, innovation and technological changes to help mitigate the effect of human-and climate-induced disturbances on salmon and their freshwater habitats. The provincial Living WaterSmart initiative is one such measure that needs support.

It's not enough to talk about climate change, because the time to take proactive measures is now. Salmon survival, reproduction and growth are fundamentally linked to water temperature in freshwater environments. British Columbia can provide an important stronghold for salmon and thermally suitable habitats in the context of climate change.

The Pacific Fisheries Resource Conservation Council (www.fish. bc.ca) was created in 1998 and is an independent advisory body whose mandate is to alert and inform the federal and provincial governments and the public on issues that threaten Pacific salmon and their habitat.



The Honourable Gail Shea is the new Minister of Fisheries and Oceans

Minister Shea is Prince Edward Island Member of Parliament for the riding of Egmont. She was part of the Legislative Assembly of Prince Edward Island from 2000 to 2007. As part of the provincial cabinet, she served as Minister of Community and Cultural Affairs. From 2002 to 2007 she served as Minister of Transportation and Public Works.

Prior to entering politics, Ms. Shea managed a small family business for 15 years and has a long history of community involvement and volunteerism.



Upon her appointment, Minister Shea said, "DFO's and Coast Guard's issues are top of mind as we forge ahead advancing departmental priorities such as fisheries renewal, market access and traceability, science renewal, the health of our oceans and international governance, to name but a few."





by Zo Ann Morten

The Pacific Streamkeepers Federation would like to thank local streamkeeper volunteers, DFO community advisor Maurice Coulter-

Boisvert and DFO technician Scott Ducharme for their efforts in getting our storage shed moved to the new location. No small feat, I assure you, but in typical community spirit and with long poles and ingenuity they did it! Many thanks as well to those who came to pack up and move much of the PSkF office equipment and paperwork.

Renew early!

It's time to renew your Membership and Volunteer Insurance Program (VIP). Update your records with our new address to ensure your requests get to their destination on time to be processed. Yearly membership and insurance packages run April 15 to April 15. Print the forms from http:// www.pskf.ca/program/insurance. html. There is a short survey on the form to help us address your needs. Send in your request early to get a quote from Speirs and Co. for your VIP. An easy way to identify your group activities is to refer to them by module number. For example, if your group is involved in native revegetation, write "Module 7". Short descriptions of each module can be found at http://www.pskf.ca/ program/program.html to aid in your application.

Streamkeepers data and the Wild Salmon Policy

The goal of Canada's Wild Salmon Policy is to restore and maintain healthy and diverse salmon populations and habitats. Its objectives and strategies are laid out at http://www-comm.pac.dfo-mpo.gc.ca/publications/wsp/wsptoc_e.htm.

Strategy Two of the plan addresses the need to maintain healthy salmon



habitat, and it depends on sound scientific data. The information collected by our Streamkeepers assists in the progress of the Wild Salmon Policy towards its goals in protecting and managing our salmon resource. Thanks to Heather Stalberg and her team at DFO, we have criteria for the assessment of fish and habitat health. Identifying them was an immense task, as within each conservation unit there are different salmon species with varying life stage needs.

At a recent meeting of community advisors, Zo Ann Morten explained how the *Streamkeepers Handbook* and modules assist in the collection of data for community-monitored watersheds.

For example, Module One reveals

the status of the habitat. How much of a stream is accessible? Where might potential problems arise?

Module Two captures data on the state of the habitat, including pool/riffle ratio, large woody debris, off channel habitat, substrate, riparian cover, water quantity and more.

Modules Three and Four provide an understanding of the water quality through chemical sampling as well as taking an up-close and personal look at the bugs that survive or thrive within the stream system.

Want to know more about Streamkeepers and the Wild Salmon Policy? We'll be discussing them at the upcoming SEP Community Workshop in Maple Ridge this spring. Join us!

Art and the Ugly Bug

by Joanne Day

The third annual Ugly Bug Ball for Lower Mainland volunteers was held June 28 at the lovely A Rocha site in Surrey. This year's theme was "the power of art". How does art move you and assist your group in its messaging? Guests brought their posters, T-shirts, banners, paintings and sculptures to share and inspire. They flew paper airplanes, had a therapeutic "whine session", ate wonderful food and talked 'til all hours.

Art is a powerful tool for spreading messages about protecting and assisting salmon and their habitats. The Salmonid Enhancement Program logo and the storm drain marking logo are now familiar emblems which bring the programs instantly to mind. Look around your community and you may see painted wooden fish on school

fences, signs proclaiming the presence of salmon in a local creek or wire mesh salmon sculptures covered with thriving plants. The artwork reinforces community involvement efforts, as it publicly proclaims that someone cares, that this place is special and that it deserves our attention.

Art showed its power in another way as funds were raised for the Pacific Salmon Foundation Stewardship Community Bursary in a silent auction and by raffling a bracelet engraved by Joe Kambeitz. The bursary provides two scholarships annually of \$1,000 each to B.C. students who are active volunteers in the aquatic stewardship community. For details and an application, please visit www.psf.ca/bursary.



STEWARDSHIP IN ACTION

Expertise + determination = RESULTS

by Aleria Ladwig

It was a lucky day for northern Vancouver Island salmon when Grant Anderson decided to direct his volunteer passions to helping them.

It began in 1985 when he started a volunteer hatchery for coho and chum on Monkey Creek, near Ouatsino Sound. Soon it was expanded to Mahatta River stocks. Habitat enhancement work began on the Mahatta and Klootchlimmis watersheds.

In the early 1990s, Grant joined the board of the Northern Vancouver Island Salmonid Enhancement Association (NVISEA) to support enhancement in the Quatse, Cluxewe, Waukwaas, Washlawlis, Stephens, Nahwitti and Keogh watersheds. NVISEA is a non-profit community volunteerdirected association that oversees the operation of the Ouatse River Hatchery, O'Connor Lake netpens and Quatse River Regional Park. As volunteer chairman, Grant has been responsible for nearly \$500,000 in annual salmon enhancement, habitat rehabilitation and stock assessment contracts. NVISEA has produced over 65 million salmonids since its start in 1983.



Grant takes milt from a magnificent salmon at Marble River Hatchery.

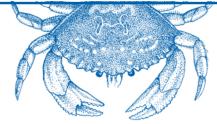
Grant and his wife Debbie then took on management of the Marble River Hatchery. They have coordinated over 100 volunteers and helped to release 5.6 million chinook and 1.2 million coho. They raised funds and helped build a rearing channel on the Marble, and took part in many other enhancement initiatives on this important recreational river.

During the critical stages of egg and fry development in the winter and spring, Grant and Debbie can be found at the Marble River Hatchery from early in the morning until late afternoon. Grant wears a pager so he can respond to alarms and drive out to the hatchery to protect his beloved salmonids.

Grant has participated in a number of groundbreaking enhancement efforts on the Marble system, including downstream trapping of smolts for assessment of stocks and coordination of watershed restoration programs in conjunction with local forest companies. All of these efforts have contributed much to the region's recreational fishing opportunities.

Grant and Debbie founded the Friends of the Marble Society, which has partnered with individuals and companies to raise tens of thousands of dollars. One unique project was the establishment of a saltwater rearing facility at Quatsino Lodge. Guests were thrilled to feed and help raise the chinook prior to their release.

The project now in progress is to develop a salmon stewardship centre that will support research, monitoring and educational programs on northern



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www.pacname.org

Vancouver Island and contribute to the area's growing tourism economy. In 2005, Grant began to work with the DFO community advisor and local representatives to develop a business plan. When it was determined that the total cost of the proposed facility would approach one million dollars, Grant was undaunted. Only three years later, NVISEA had raised sufficient funds to begin construction. Grant was in the middle of it all, doing everything from helping to acquire the building permit, to working on site with contractors.

Grant Anderson has dedicated much of his life to salmonid enhancement and to educating North Island visitors, residents and other volunteers about the fragile nature of the resource. And if you ask him if he gets time to fish recreationally, he laughs and says, "That's for my grandkids."

West Vancouver Streamkeepers recently hosted This just in: an evening at which the Hon. Barry Penner, B.C. Minister of the Environment, spoke about

protecting the natural environment on the North Shore. He also presented awards to Zo Ann Morten and Karen Munro, in recognition of years of dedicated and creative achievements in the field. Congratulations!



Sustainable seafood

How do you know what is and what isn't?

It's hard to tell sometimes where a supermarket fish has come from, and few of us think to ask about the origins of a restaurant's Catch of the Day. However, there are ways to find out.



"Eat your fish. It's good for you."

your mother

Founded in 1997, the Marine Stewardship Council (MSC) is a global, non-profit organization with offices in London, Sydney, Seattle, Tokyo, Edinburgh, The Hague, Berlin and Cape Town. Its goal is to reverse the decline of global fish populations through consumer pressure. Seafood products caught in fisheries certified sustainable under the MSC standard are marked with an 'eco-label'. The three principles of the standard relate to biological sustainability, ecosystem/ habitat impacts, and the management system. Third-party certification is becoming a global requirement for demonstrating sustainable use of ocean resources. While many programs and initiatives are out there, MSC certification is the only thirdparty process that meets the United Nations Fisheries and Agriculture Organization guidelines and code of conduct for responsible fisheries.

A team of independent experts assesses a fishery against the standard through a process subject to peer review and public scrutiny. In B.C., there are currently six fisheries involved in a full MSC assessment: sockeye, halibut, pink, chum, dogfish and hake. B.C. fisheries in the preassessment stage include roe herring, tuna, shrimp trawl, sablefish, Area A crab, groundfish trawl and prawnby-trap. British Columbia seafood products were shipped to 70 countries in 2006, generating a total export value of \$987 million; so increasing interest in the certification, especially in Europe, could be significant.

For more information and to view the eco-label, visit www.msc.org.

The Suzuki Foundation has published a guide to sustainable seafood aimed not only at concerned consumers but at chefs, commercial fish buyers, and restaurant managers. State of the Catch: A professional's guide to sustainable seafood documents the current status of many fish and shellfish stocks available in restaurants and supermarkets. The guide assists in the selection of ocean-friendly fish and shellfish, while avoiding species

that are threatened, endangered or poorly managed. It is available online at http://www.davidsuzuki.org/files/ Oceans/StateoftheCatch.pdf

Sustainable Seafood Canada is a coalition of Canadian conservation organizations working together via the SeaChoice program to raise public awareness of the threats to oceans and the solutions that sustainable fisheries offer. You can download a pocket consumer guide to shopping responsibly for seafood at www. seachoice.org.

Ocean Wise is a Vancouver Aquarium conservation program designed to educate and empower consumers about the issues surrounding sustainable seafood. Ocean Wise works directly with restaurants and markets, ensuring that they have the most current scientific information regarding seafood and helping them make ocean-friendly buying decisions. Preferred options are highlighted on menus and display cases with the Ocean Wise symbol. The website is http://www.vanaqua.org/oceanwise.



Turn in your Head!



Have you caught a salmon with a missing adipose fin?

Some chinook and coho have had a coded-wire tag placed in their heads. The tag provides important information for fisheries research and management, including:

- abundance, distribution and survival
- trends for planning next year's fishing season
- run timing in salt and freshwater areas.

Anglers are asked to return the heads of tagged fish to a Sport Head Recovery Depot. Your name is then entered into an annual draw for prizes such as fishing gear and trips for two. You also receive information on the origin of your fish.

Visit www.pac.dfo-mpo.gc.ca/recfish/Tagging/contest_e.htm for more information and a list of depots.



Project Highlight

Small fry meet salmon fry in a face-to-face learning experience

by Liz Robertson

Wonder and amazement glow on a ten-year-old boy's face as he peers into the Salmon River, searching for tiny creatures and salmon fry. Hands-on interaction is the key to success when it comes to salmon education and preservation.

The Salmon River, one of B.C.'s top salmon producing rivers, runs right through the Langley campus of Trinity Western University (TWU). The TWU Ecosystem Study Area is dedicated to the study, preservation, and proper management of the environment. It is a valuable area of diverse and sensitive habitat, home to coho, chum, cutthroat, steelhead and the endangered brassy minnow. It is also a refuge for a variety of endangered plants and animals.

With a grant from the Natural Sciences and Engineering Research Council, TWU has run science field trips since 2005. Science-inthe-Valley's three components meet the Prescribed Learning Outcomes set out by the Ministry of Education. "Matter Matters" focuses on chemistry, targeted for Grade 7. "Life Through a Looking Glass" is for Grade 6 students studying animal and plant cells and microbiology, and "Salmon-in-the-Valley" is for Grade 4 students.

In May 2007, over 1,660 students participated in the program, with 510 taking part in Salmon-in-the-Valley. Sponsorship and support from the Salmon River Enhancement Society enabled additional classes to attend. The society also donated a book about the salmon life cycle to each of the 20 classes that participated.

Salmon-in-the-Valley is taught by TWU upper-level students in environmental studies, biology and education. Throughout the full-

day field trip students are engaged through games and interactive exercises that teach about organisms, food chains, the salmon life-cycle and habitat. Emphasis is also placed on streams as salmon nurseries, the importance of water quality, how forests provide shelter for salmon and other conservation issues.

Prior to the field trip, each classroom teacher is given a manual with an overview of the material, and upon arrival at TWU, each student receives a field journal to work with. Upon completion, each student receives a certificate.

The response to these field trips has been very positive. Teachers who attend are quick to inquire about booking for the following year and often give us feedback such as this: "...getting students to see that Science is in the world around them, and is something to be embraced and enjoyed, is invaluable. The fact that the program is interesting and aligns excellently with the B.C. curriculum for Grade 4 is like icing on the cake!" A home-school coordinator says, "I thought it was an excellent program from beginning to end...the hands-on experiment of looking for

invertebrates and the water quality test along with the life cycle and habitat of salmon helped us understand and enhance our attitude toward the environment."

"...getting students to see that Science is in the world around them, and is something to be embraced and enjoyed, is invaluable."

> ~ Grade 4 teacher, Abbotsford School District

Says Dr. Craig Montgomery, TWU professor of chemistry and one of the initial creators of Science-in-the-Valley, "We are truly grateful to our funders that have supported this unique learning lab. So many young people, their teachers and parents were able to explore science in an exciting and practical way and we feel privileged to be able to facilitate this."

Educating children is always a privilege and we look forward to many more opportunities to engage students and their teachers in Salmon-in-the-Valley, educating small fry about salmon fry and their habitat.

For information about Science-in-the-Valley, contact liz.robertson@twu.ca.



Young scientists, undeterred by chilly weather, carry out experiments in the field.





www.salmonsafe.org

Urban streamkeepers and architects in search of inspiration may find this site worth a visit. A new housing development on Portland, Oregon's south shore includes water-treating ponds, green roofs and other elements that will slow and clean storm water. The local environmental group Salmon-Safe has awarded the neighbourhood Salmon-Safe Status, meaning that the area exceeds state and federal regulatory commitments to protect the Willamette River and its urban tributaries. The designation commits the neighbourhood to sustain its environmental stewardship over time, including the district-wide elimination of pesticides that are harmful to salmon and other aquatic life.

Some features are similar to those listed in the plans for Vancouver's Olympic Village in False Creek. Shoreline works there are to include a new island and inter-tidal fish habitat, seaside greenway, bikeway, urban agriculture, rainwater management systems, green roofs and a neighbourhood energy system (vancouver.ca/olympicvillage).

http://www.cbsm.com/public/world.lasso

This site offers five resources for those working to foster sustainable behaviour in areas such as conservation, energy efficiency, transportation, waste reduction and water efficiency. You'll find the complete contents of the book *Fostering Sustainable Behavior*, as well as searchable databases of articles, case studies and turnkey strategies. There are also discussion forums for sharing information and asking questions.

http://a100.gov.bc.ca/pub/wtrwhse/water_licences.input

The current status of water licences for any river, lake or stream in B.C. may be found by query at this site.

Peaky fish? Who ya gonna call?

Welcome to Christine MacWilliams, our new veterinarian for DFO Pacific Region.

She is there to help with questions regarding vaccinations, medications, diagnosis and treatment of fish illness.

If your fish are not eating or are looking lethargic, please contact your community advisor and cc Christine.MacWilliams@dfo-mpo.gc.ca.

http://thescotsman.scotsman.com/scotland/ New-theory-on-how-Salmon.4750204.jp

Allan C. James of the Stoney Creek Environment Committee alerted us to this article in *The Scotsman*, which describes a theory about the ability of salmon to find their natal streams. Scientists suggest that salmon may be able to imprint and detect the unique magnetic field of their birthplace.

http://www.nature.org/wherewework/ northamerica/canada/features/art26276.html

The Nature Conservancy here offers eight fascinating short videos about the Great Bear Rainforest, including one about Pacific salmon. Thanks for this suggestion as well, Allan!

www.biodiversitybc.org

Biodiversity BC is a partnership of conservation and government organizations, formed in 2005 to develop a biodiversity strategy for British Columbia. A science-based assessment of biodiversity in the province has been completed. Click on "downloads" to access *Taking Nature's Pulse: The Status of Biodiversity in British Columbia*, as well as a selection of component reports.

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StreamTalk

is published collaboratively by Fisheries and Oceans Canada and stewardship, enhancement, education and Streamkeepers groups in B.C. and the Yukon that care for salmon and their habitat.

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