

FREE  
MAGAZINE

*Tread Lightly and Listen to the Land*

Issue 11, 2014

# THE FOOTPRINT PRESS



Passages from  
Silverdale, Mission,  
Abbotsford  
and beyond.



## Message from the Editorial Committee

The story of the swans is a cautionary tale of the tragic, unintended consequences of environmental contamination. Natural ecosystems are incredibly complex and perfectly balanced. These systems include mechanisms to support life, as they have for millennium. Like the swans, our health and well-being is dependent on the health of the environment around us.

The advent of technology has provided human beings with enormous power to alter the environment. But too often, our actions ignore the wisdom inherent in the natural ecosystem. The politics of poison feed our denial allowing human and nonhuman life to be put at great risk. While the mistakes of our past may represent unintended consequences, do we really believe our bodies are immune to the same poisons that kill other life forms? Have we already forgotten the story of the swans?

Cover photo: Steller Jay, Bruce Klassen



Swan photo, Rick Skerry, Hatzic

## On Wings of Success

Every so often, Hope raises its beautiful head, and all is then right with the world. This rare story of emerging success, presents one of those times. The Trumpeter swans have now escaped the status of near extinction. However, it hasn't always been that way.

With the Binomial name of *Cygnus buccinator*, this swan has barely survived times of severe depletion of its species. Hunted for food and feathers in the 19<sup>th</sup> and 20<sup>th</sup> centuries, killed more recently by poaching, lead poisoning used in hunting ammunition, and severe habitat loss, this species has suffered long and painfully. Physically out-sizing the plentiful Tundra swan (the other native North American swan), the Trumpeter swan is the largest and heaviest North American bird. As adults, its length extends over 1.5m (60 in.), with the males (cobs) being longer and heavier than the females (pens). Both sexes weigh from 7 to 17.2 kg. Standing straight-necked, and upright at over 1m high, this swan's wingspan measures up to 3.1m wide. It has a distinguishing wedge-shaped black bill, white feathers, and leg colours ranging from grayish-pink, yellow-gray, or black, with flat, black webbed feet, allowing it to glide, then splash down to the water's surface. Sounding like a trumpet, hence the name, the Trumpeters are described as "the embodiment of grace, beauty, of unspoiled wildness." For the 75% of the Trumpeter swan population residing in B. C. and the Pacific Northwest, their preferred habitat varies between estuaries, large clean quiet shallow ponds, marshes, lakes, wetlands, and wide, slow-moving rivers. There, they will swim, and feed upended, searching and stirring up the mud-laden watery shallows, for submerged

aquatic, or fresh, new vegetation. Grasses, and grains occasionally form part of their diet.

Mating begins when the birds reach their 2<sup>nd</sup> to 7<sup>th</sup> year, with some waiting longer. Generally, the swan's mating partnership lasts a lifetime, though "divorces" do rarely happen, and occasionally, if death to her partner occurs, the pen may mate again. Breeding takes place in the shallow waterways during late May to mid-September, with the largest amounts of breeding Trumpeters found in Alaska. Though there are few known breeding sites, generally these areas are in Northern and Central B. C.

Following shortly after the breeding season, nesting takes place in remote, unpolluted, undisturbed, large freshwater sources, replete with emergent vegetation. Water depth of about 1m is necessary for feedings and take-offs. Nests, about 1.2 to 3.6m wide, and just under 1m high, consist of large mounds of vegetation, distanced from the shoreline for protection from human or predator disturbances. The down and feather-lined nests, built for up to 4 weeks by both expectant parents, (the cob providing, and transferring the necessary vegetation to the pen for the nest-building), are built atop small islands, stumps, beaver or muskrat lodges. Due to territorial behaviors, and intense aggression of the nesting Trumpeter swan couple, usually only 1 nesting pair occupies smaller water bodies. The nests are usually returned to annually, and reportedly, after 2 nesting summers, a deep attachment to the site by the mated pair persists for several years. However, they will be abandoned if disturbance threatens.

A clutch of 1 to 9, 7.3mm-sized creamy coloured eggs, are laid in late April or May. The mated pair incubates





later, when the females have completed shedding, the cobs follow the same procedure.

Another major event in the wild Trumpeter swan's life, is the annual migration before freeze-up, usually between October and early November. Flying in a "V" formation, between 40 to 80 kms per hour, the flocks can travel hundreds of kilometers to their favourite winter feeding and roosting destinations. During migration, family groups stay together, and throughout the winter's ice-free areas. Winter is a social time for these large birds. When joining others of their species, they form flocks often numbering into the hundreds, meticulously foraging in farm fields, slow-moving rivers, and other shallow waterways. These winter locations are usually in Pacific coast areas from Haida Gwaii, to southern Vancouver Island, over to the mainland, including the Fraser Valley, Washington state, and other warmer portions of the U. S.

Captive Trumpeter swans have been known to live up to 33 years old; wild ones to 24 years. However, this species' young enjoys only a

40% survival rate due to various threats, such as human disturbance and destruction, many predators, nest flooding, and starvation. Adult survival is quite high, at 80 to 100% annually, unless they are poaching victims of humans, or prey of Golden and Bald eagles.

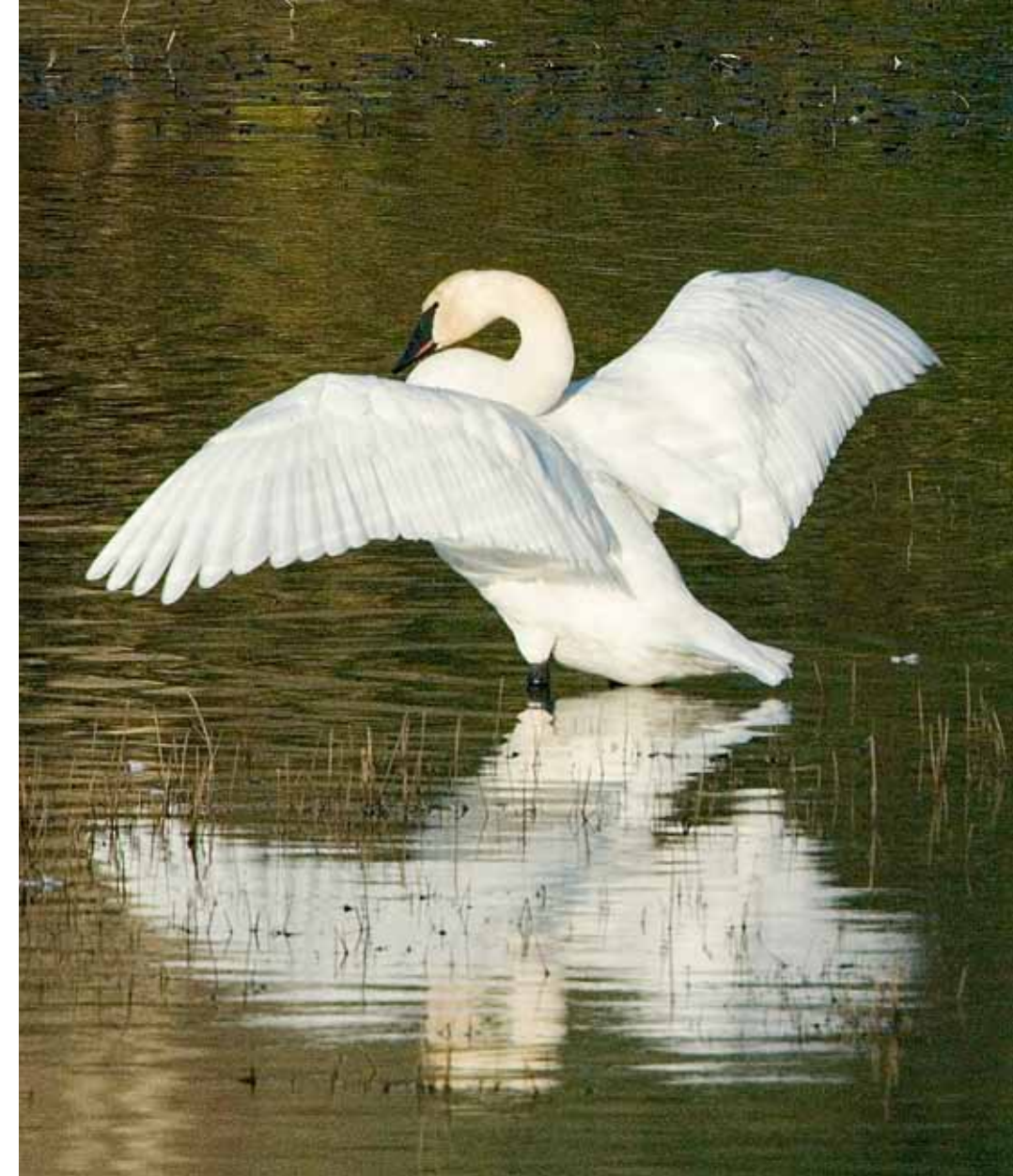
Due to a general lack of breeding pairs in B.C., and sensitivity to human activities in their wintering areas, or natural disasters, this swan is Blue-listed, of "special concern" (at risk), in B.C. Currently, in B.C., and Washington state, they number about 14,000 individuals, with a World population exceeding 30,000. Additionally, predation from various large birds, large and small mammals, and some aquatic reptiles, limits Trumpeter swan survival. As well as human disturbances, encroaching development, oil and gas exploration, with the inevitable oil spills, and illegal hunting severely impacts their numbers. In Canada, migratory waterfowl hunting was banned in 1933, and hunting, using lead shot, became illegal in 1999, followed

by a ban on using lead fishing sinkers. Resembling grit, these extremely toxic lead materials are unwittingly used by unsuspecting birds for food grinding; as few as 3 pellets can result in long, painful deaths when ingested from shallow waters, or soil. These unremoved lead substances continue to kill thousands of Trumpeter swans, other birds, and even the various predators which feed upon the lead-poisoned birds. Non-toxic lead shot, and fishing-weights must now be used in hunting and fishing, while lead shot is still legal for use in trap shooting and other non-hunting activities.

Judson Lake, in Abbotsford, B.C., is a small, shallow, seasonal lake straddling the B.C. - Washington State border. Advocating in various ways for a resolution involving the Lake's 3200 Trumpeter swan deaths, those "lead shot" tragedies have resulted in long-standing dialogues between an area resident, and Canadian and U. S. government agencies. Through hazing, fencing, and monitoring programs, 66 to 77% of swan mortalities have decreased, but further programs are hampered by funding limitations. For much more information, please refer to: <http://savetheswans.ca/>

Although Trumpeter swans are considered beneficial winter visitors by some farmers, due to their meticulous cleanups of rotting field crops, other farmers complain about the dangers created by these large-footed birds on their water-laden fields. In order to reduce these problems, management help is now available throughout North America by Wildlife agencies. Through the establishment of many programs, including habitat restoration, banding, monitoring swan behavior, winter crop plantings, and hazing programs, (using field obstructions, dogs, noisemakers, and other preventative devices), the damage of foraging swans can be minimized.

Public help can also be very beneficial to the increasing survival of these beautiful birds. We can help by: petitioning the government for removal of existing lead shot and fishing weights from shallow



waterways, agricultural fields, and other known hunting areas, planting vegetation to absorb rain water, thus reducing erosion, reducing litter and chemical use, not approaching the nests, becoming actively involved in financial/voluntary support of local wildlife and conservation organizations, supporting good municipal land use plans, including habitat preservation, and by supporting such Trumpeter swan organizations as Ducks Unlimited, Trumpeter Swan Society, The Federation of B.C. Naturalists, or The Nature Trust of Canada.

We are beginning to learn that, with caring, concerted efforts of conservation groups, and individuals, mixed with cautious optimism, a species which had been on the brink of extinction due to human folly, can begin thriving. Given that, Hope springs eternal for the Trumpeter swans, and other threatened animal species!

**Val Pack,  
Mission**

the eggs, though the female is the prime candidate. Following 33 to 37 days, notwithstanding nest flooding, predation from many animals, and human disturbance, hatching results in an open-eyed, gray-downed cygnet. Within 24 hours, it leaves its cozy nest for the water area to swim, and begins feeding on insects, small fish, fish eggs, crustaceans, and plants, all adding valuable protein to allow the hatchling to thrive and grow. However, in just a few months, the mainly protein diet is changed to a vegetable-based one. At the fledging stage, reached between the 3<sup>rd</sup> to 5<sup>th</sup> months, the young bird starts to become white, generally resembling its adult parents. After the 1<sup>st</sup> year, it is completely white-plumed. The cygnet siblings remain together for 2 seasons, then leave in search of mates.

Usually during July and August, adult Trumpeter swans moult. At this time, they lose their flight feathers, rendering them flightless for 1 to 2 months. The pens moult shortly after their cygnets hatch, while a month



# When science is corrupted by corporate greed



Evolved Man,  
Don Mair, Mission

When Monsanto wanted to introduce their engineered corn in France, they were asked to do a toxicity study on laboratory animals. They chose a strain of rats commonly used in this kind of study named the Sprague Dawley strain, famous for their propensity to develop cancer. The rats were fed engineered corn grain for 3 months and the results of blood tests and autopsies showed no effects on any of the parameters analyzed.

Gilles-Éric Séralini, a French academic at the University of Caen, was curious and asked to see the results of the study. After some legal wrangle he was able to reanalyze the data and he showed that there were definitely preliminary signs of toxicity to several organs. But the European regulatory agency refused to consider his statistical analysis and called his new findings “biologically irrelevant”.

This term is similar to another expression used by North American regulatory agencies: “substantial equivalence”. It’s where engineered crops are considered similar enough to their original, non-engineered type, that they don’t “need” to be tested. Interestingly, few countries in the world recognize the scientific legitimacy of this term.

Perhaps this is why the Royal Society of Canada was asked to study the situation and report to Health Canada. They concluded that no formal criteria or decision-making framework exists for food safety approvals of engineered (GE) products by Health Canada. Sadly, they also concluded that no independent testing of the safety of GE foods by a governmental or other, independent, laboratory was required. On other continents, the scientific community and the governments have brought in regulations requiring safety testing. But not here in the biotech bubble of North America.

The direct transfer of bacterial genes into plants give rise to novel proteins - proteins whose effects on biological systems are unknown. Indeed, in 1996, just before the commercialization of the first engineered crops by Monsanto, the staff of the FDA (Food and Drug Administration in the US) warned their director that the engineering process was known to produce misshapen and truncated “rogue” proteins, and that some of them could be toxic and allergenic.

Now after 18 years, and after many published studies, we know that engineered potatoes and grains fed to rats, impair the function of many vital organs. While





the precise mechanism has not been investigated (i.e. the rogue proteins have been completely ignored), we were officially and publicly warned in 1999 by professor Arpad Puztai and in 2004 when the FDA story was published in the scientific literature.

Such was the scientific stage onto which Dr. Séralini stepped, when he decided to repeat the Monsanto toxicology study, using the same strain of rats and the same research protocol. Except he extended the length of time of Monsanto's original three month study to two years and he included several treatments with the herbicide Roundup. Since the herbicide is sprayed on 90% of all engineered plants – and consequently most

engineered food ingredients contain herbicide residues – he wanted to test the two effects separately.

The results of his rat feeding study were striking. After 3 months, exactly similar to the Monsanto study, there were preliminary signs of toxicity to several organs, particularly the kidneys and liver. After a few more months these early signs became severe, and as the study progressed, the rats developed kidney and liver damage, and later on, mammary tumors and breast cancer. While Dr. Séralini's experiment was not specifically designed to test for carcinogenicity, cancers occurred nonetheless, and he was duty-bound to report them. In fact, a failure to do so would have been a breach of ethical scientific practice. As soon as his study was published in the peer reviewed science journal *Food and Chemical Toxicology*, the "corporate science community" orchestrated an amazingly loud and persistent campaign to trash the study. Even though many reputable scientists came forward to express their support of the study, it was abundantly obvious that most, if not all the scientists taking part in this smear campaign had links to the biotech companies. This phenomenon has happened repeatedly in the last 15 years. Whenever a study shows cause for caution, a campaign of letter writing to science journal editors and newspapers follows.

Dr. Séralini and his team held firm, as did the editor in chief of *Food and Chemical Toxicology* who did not retract the paper. However, and this is where things become interesting, a few months later, a new editor was added by the head office of the publishing company to the editorial board of the Journal, a former Monsanto scientist with an obvious conflict of interest. Not long after, a "review" of the Séralini study by an anonymous team of reviewers took place, and the study was finally retracted, a year after it was published.

Critiques of the study mostly fell into two categories: (1) those who said that he chose the wrong strain of rats; and (2) those who said he did not have enough rats in his experiment. Each of these critiques has been answered at length by Dr. Séralini <http://www.gmoseralini.org>. Without going into the details of this exchange, suffice it to say that Dr. Séralini repeated a toxicology study

done earlier by Monsanto, and that if his study is invalid, then so too is Monsanto's original study.

The scandal was all over the news; the retraction has been called illicit, unscientific and unethical. It repeats a pattern seen many times in previous years, where the "corporate science community" saturates the media with derogatory critiques of any study showing concern. Except this time, the editorial board of a scientific journal has been "corrupted". Are we going back to medieval times, when the dogma held that the earth was flat and any scientist daring to claim otherwise was muzzled? What happens when science is corrupted by greed?

And in all that scuffle, nobody noticed that not one of the critiques was directed at the toxicity study itself. After four months of eating 11 % engineered grain, the rats displayed metabolic stress expressed in damaged organs, particularly kidneys and liver. Thankfully, four months for a rat is about 10 years for a human, but if more than 10% of your daily diet is made up of engineered grains, you are on a Roundup diet like the laboratory rats: A problem both the biotech industry, and the government agencies, don't believe you really need to worry about.

### Thierry Vrain, PhD

**Dr. Vrain is a retired soil biologist and genetic engineer who, after a 30-year career with Agriculture Canada, no longer supports genetic engineering in Agriculture. During those years he was the Head of a research group of 40 professionals in Biotechnology, the Vice President and President of national and international associations of soil biologists, and an Associate Editor of several scientific Journals in Europe and the USA. Alarmed by the avalanche of scientific studies out of Europe raising many concerns about the long-term safety of genetically engineered foods, Dr. Vrain is increasing public awareness about their potential hazards.**



*“There is a fire burning over the Earth, taking with it plants and animals, cultures, languages, ancient skills and visionary wisdom. Quelling this flame and reinventing the poetry of diversity is the most important challenge of our times.”*

Wade Davis, *The Clouded Leopard*.



Swan photo, Rick Skerry, Hatzic



# Health concerns of farmed salmon

**T**he risks of consuming farmed salmon continue to be a persistent threat to the health of the general public. As a number of scientific studies have shown, the level of toxic contaminants such as polychlorinated biphenyl (PCB), organophosphate pesticides, and prophylaxes residues, remain high in fish farms. These contaminants accumulate in salmon skin and tissue, and upon consumption, biomagnify up the food chain into us. That is, the consumer of contaminated fish ends up accumulating even more of these unwanted chemicals in his/her tissue than found in an individual farmed salmon.

But why worry about these toxins? What do they do to us? High levels of PCB are known to cause liver damage, degrade immunity, disrupt normal menstrual cycles, and poison us. Pregnant women in their third trimester are at a greater risk. During the third trimester, the fetus undergoes significant nervous system development. PCB can cross the placenta into the fetus and potentially harm the fetus' mental development. And the effects of chemicals like PCB on your child do not end there. Studies have shown breast-feeding mothers on a farmed fish diet contain higher PCB levels in their milk. Subsequently, a mother breast-feeding her baby will transfer over PCBs. Higher PCB levels in infants are correlated with poor cognitive development, poor short-term memory, and abnormal behaviour.

Another concern of salmon farms is the cruelty these fish have to endure. Paradoxically our cruelty towards farmed salmon not only harms the salmon, but humans as well. Poor conditions such as over-populating farms to the extent where water conditions degrade (due to buildup of fecal matter, uneaten food, chemicals, etc.), or carrying out poor farming practices such as administering

pesticides, elicits a sustained stress response in salmon, taking a toll on their performance by deteriorating their immunity. And an over-packed farm with weak salmon is a pathogen's best friend. As a result, prophylaxes (vaccines, antibiotics, etc.) are administered to boost salmon survivability. The vaccination procedure can be hard on the salmon, causing spinal deformities, lesions, and additional stress if not administered properly. Imagine if we went to get a vaccine and the doctor managed to poke through our spinal cord. Our life would most likely change for the worse. Because we administer prophylaxes to salmon, the farmed fish we eat are rich in synthetic compounds like antibiotic residues that eventually end up in us. We end up consuming "medications" that we do not require. And if overused, antibiotics are detrimental to the human population since they promote the development of antibiotic-resistant bacteria that have an advantage over the human immune system. Thus our cruelty towards fish ultimately harms us as well.

Ultimately, salmon farming harms both the consumer and the fish. The salmon suffer by having to live in poor conditions that are contaminated with chemicals. Their immunity takes a hit, which encourages the accumulation of viruses, bacteria, and other microbes. Then they have to suffer by getting vaccinations that can deform or even kill them. And ingesting life threatening chemicals and antibiotics that promote the evolution of anti-biotic resistant bacteria are no better for consumers. So why continue harming both species?

For more information, please visit:

<http://blogs.ubc.ca/aurash/>

<http://alexandramorton.typepad.com>

Aurash Yazdgerdian,  
Maple Ridge







## Boycott Net-Pen Farmed Salmon Critical to Human Health and Wild Salmon Promotion

**T**he Harper Conservatives have opened the door wide for a major expansion of B.C. fish farms on our coastal waters. This marks a very bad turn of events that does not favour the ocean habitat or Fraser River sockeye salmon runs. A special commission, led by Justice Bruce Cohen, spent \$26 million of tax payers' dollars to look into the 2009 collapse of Fraser River sockeye salmon. The commission concluded the Department of Fisheries and Oceans (DFO) is in a conflict of interest by enabling and supporting coastal fish farms at the same time having the official mandate for protecting oceans and wild fisheries. This expansion of net-pen fish farms flies in the

face of the Cohen Commission's warnings about the potential for serious or irreversible harm fish farms pose to wild salmon. There are no strategic plans for implementing Bruce Cohen's 75 recommendations to address the need to restore the endangered Fraser River sockeye salmon runs to former levels. This restoration would help sustain the ecosystem, as well as the sustainable and lucrative sports fishing and ecotourism sectors of B.C.'s economy, and important Aboriginal fisheries. The strategy would require the involvement of scientists, Fraser River First Nations, the sports fishing industry, ecotourism and other stakeholders. Under the

Cycle of the Salmon,  
Betty Ann Pennier



Spirits of the Longhouse,  
George Pennier,  
Mission

federal conservatives, this is simply not going to happen as they have chosen to bury the Cohen Commission report, reduce DFO's capacity to manage wild fisheries and oceans, and at the same time bolster support for the coastal aquaculture operations with a \$57.5 million dollar renewal of funding to bring about certainty for this destructive industry (see link below). The decision to support and enable the expansion of coastal fish farms has amplified the need to intensify the boycott of farmed Atlantic salmon and have it spread across BC, the rest of Canada, and globally, especially the US market where much of the net-pen farmed salmon are sold. Wild salmon are an endangered species. There are many causes including global warming, pollution, habitat loss and over fishing. The most immediate menace is created by the coastal aquaculture industry, and can be resolved by having the farms removed from the migration routes of wild salmon. As an alternative, this industry could move into more sustainable,

environmentally friendly closed containment aquaculture systems. For more information about this, just

Google "farmed and dangerous." We encourage people to turn out in large numbers to the farmed Atlantic salmon boycott rallies in Chilliwack, Duncan, North Vancouver, Burnaby, Kamloops, Mission, Cranbrook and Halifax. Individuals and groups can also go to their local restaurants and grocers (Superstore, Walmart, Costco), and ask the manager to remove net-pen farmed salmon from their menus and coolers, as they have high contamination levels, and the way they are grown in open net-pens is unethical and irresponsible. For more information, please go to:

[www.salmonAlert.org](http://www.salmonAlert.org).

**Eddie Gardner**  
**Net-Pen Farmed Salmon Boycott Coordinator**  
**604-792-0867/ [singingbear@shaw.ca](mailto:singingbear@shaw.ca)**

<http://www.vancouversun.com/news/Federal+budget+cuts+million+from+fisheries+oceans+over+three+years/8133846/story.html>



# No Hazardous Waste facility in the Heart of the Fraser!

**H**istorically, threats to the Fraser River have been many and varied. These include indiscriminate gravel removal, habitat destruction due to flood plain development, and ongoing pollution from the many communities adjacent to the Fraser River. A new, and one of the most serious threats, is the proposal to establish a “Hazardous Waste” facility on the Fraser flood plain in Chilliwack. Chilliwack Council rezoned the property on Cannor Road Feb. 4/14 to accommodate this facility.

Significant community concern has been expressed that Council did not provide adequate time or information for the public to review and comment on this controversial proposal. The Sto:lo Tribal Council also expressed concern and has joined the resulting coalition of concerned groups and individuals. To date, this coalition consists of 24 groups representing approximately 120,000 members both within Chilliwack and surrounding

communities. First Nations, the recreational community, and environmentalists have come together in common cause. The potential catastrophic impact on fish and wildlife and destruction of a common heritage was the catalyst for this alliance.

The list of materials to be handled at this facility will be alarming to all, not just the dedicated environmentalists. PCB's, 500,000 mercury light bulbs monthly, and infectious waste are just some of the materials to be handled. It should be noted these materials will be trucked into the facility. Then, after handling will be trucked out again to destinations in Alberta. Thus potential hazards not only include flooding and leaching, but also the potential of accidents on our roads and major highways. One can remember the recent accident with a semi-trailer upside down in the Vedder Canal. Imagine the implications of a trailer load of mercury and PCB's in the Vedder Canal! The coalition members mentioned above have been

consistent in their message. They are not opposed to the facility; they are vehemently opposed to the location. PCB's, mercury and infectious material have no place on the flood plain of the “World's #1 Salmon river”. Despite safeguards listed by the proponent and Chilliwack Council, it's not a question of “if” accidents happen, it's a question of “when” accidents happen. The potential of this “Devils Brew” leaching into the Fraser River is a reality. The provincial Ministry of Environment has confirmed that leaching from this type of facility is common. Compounding the potential are the drainage ditches parallel to the facility which pass through the adjacent Nature Reserve, then into the Fraser River, which is basically a stone's throw away. Leaching and runoff from the property has only one way to go, and that's into the Fraser River. This is a totally unacceptable scenario! The facility must be moved to a more secure location away from the Fraser River flood plain!

To date, the coalition of concerned groups has initiated Press Releases and a public forum Jan. 18/14, which had standing room only. This forum demonstrated the tremendous opposition within and beyond the community of Chilliwack and questioned how elected officials would ever consider a proposal impacting the World's #1 Salmon River. The primary speaker at the forum was Order of Canada recipient Mark Angelo, representing the International River Foundation. Mark stressed the importance of this area as the “Heart” of the Fraser and reiterated the message: “We are not opposed to the facility. We are opposed to the location”. All concerned citizens have a responsibility to contact their elected officials at the local level and their MLA's and MP's. We must hold them accountable to ensure this threat to our precious resource is not allowed to proceed. We must not be complacent and assume that this threat will go away or rely on others to convey the message. We must all recruit more people in opposition. We will demand that those agencies responsible for protecting the environment do their job. This includes the provincial Ministry of Environment, Environment Canada, and the Dept. of Fisheries & Oceans.

We share this precious resource with our First Nations friends. We also share the concern that this priceless heritage be preserved for our respective future generations. Our children are the future stewards of the resource, and that stewardship will depend on our responsible actions now.

For more information, visit:

<http://community-revision.org/waste/>

**Rod Clapton**  
**President B.C. Federation of Drift Fishers**





## A High Stakes Game of Cat and Mouse

Cats have been living with humans for thousands of years, but recent conservation attempts have raised questions about their long-term effects on wildlife. With domestic household pets on the rise, more free-roaming and abandoned cats have access to birds and small mammals. Through generations these cats become feral and are no longer suitable as pets. Though there is no doubt that an increase in outdoor and feral cats means an increase in predation, finding exact numbers to work with is no easy task.

Research of this nature is cost-prohibitive and labor-intensive. Even studies that examine the stomach and intestinal contents of euthanized or deceased outdoor cats can be misleading, as cats are opportunistic and will eat animals killed by another predator. Some studies rely on pet owners to record the number of animals caught, but these are based on memory and often over or under-reported, depending on the owner's view of their pet as being either a "great hunter" or a "gentle soul." Given the solitary nature of the feral cat, direct observational studies are not practical or possible on a large scale, so estimates vary drastically.

Still, the overall best guesses show that, in Canada, feral and free-roaming cats kill approximately 200 million birds and roughly 500 million to 1 billion small animals per year. Despite the increase in pets in our households, only 30 percent of cats are kept indoors, which is a shame for both the cats and the wildlife. Outdoor cats live an average of five years, often suffering debilitating deaths from toxins, human cruelty, cars, or animal attacks. Indoor cats live an average of 15 to 17 years and generally die of natural, age-related causes. Though cats are natural predators, they are non-native animals and our wildlife has not developed defenses against them. Well-fed cats hunt just as avidly as hungry ones and also have a tendency to "play" with their prey, landing startling numbers of birds and small mammals in wildlife

rescue centers such as Elizabeth's Wildlife Center in Abbotsford.

Elizabeth Melnyck, founder and primary caregiver at Elizabeth's Wildlife Center, admits over 1000 animals and birds each year from all over the lower mainland. Close to 90 percent are "cat-caught" and require medical intervention and lengthy stays at the Center. Though Melnyck likes cats, and has rescued many cats and kittens, she stresses the importance of keeping pet cats indoors or limited to outdoor enclosures. Funding for the Center is always an issue and a full-time job, so it is the responsibility of cat owners to ensure that our pets are not contributing to the suffering that Elizabeth and her volunteers witness on a daily basis.

Feral cat populations have been dealt with in many ways in the past. Extreme and inhumane methods of eradication have proven ineffective as new feral cat colonies move in and take over where there is no longer competition. To date, the most responsible method for keeping feral cat colonies from growing is the Trap, Neuter, Return (TNR) programs. Though there are rare exceptions, feral cats are not suitable for adoptive placement and long to live the way they were born: in the wild. TNR programs trap these cats, take them into veterinary care where they are spayed or neutered, vaccinated and released back into their colony. The vaccinations prevent the spread of disease to other mammals, though the rate of disease in feral cats is only about four percent, much the same as among pet cats. There are benefits to having feral cats around, especially in areas well populated with rodents such as grain lots, barns, and gardens. Unfortunately, cruel-hearted headlines suggesting that cats are bloodthirsty killers, have prompted acts of animal cruelty rather than reasonable discussion and humane solutions.

The bottom line is that cats are bound carnivores. Unlike many other animals, their biology dictates that they must eat meat to survive. Predatory behavior is natural to them and it is up to us to limit the damage they do. Responsible pet ownership requires that we consider both our pets and our wildlife and strive for balance between the love that comes with cat ownership, and the wellbeing of local birds and wildlife. We need to urge our municipalities to help fund TNR programs for our feral cats and spread the word about the benefits of keeping cats indoors or with access to outdoor enclosures. When we begin to respect our animals and manage them in ways that benefit both pets and wildlife, then we can truly feel worthy of the natural living beauty that surrounds us.

**Carrie Besko, Deroche**

## Farmland - A Treasure beyond Measure



Swan photo, Rick Skerry, Hatzic

British Columbia's land mass is 90 million hectares, of which 4.7 million hectares is protected within The Agricultural Land Reserve [ALR] and only 1.1 million hectares is prime sustainable farmland, that is soil classes 1-3.

The ALR, a fine, practical plan, was created between 1974 and 1976 to protect good farmland from huge losses of tracts of land destined to be covered and contaminated by black-top and concrete, as had occurred in drastic numbers during the 1970's.

In B.C. the abundance of good clean water is taken for granted, together with the availability of bountiful varieties of foods. We all witness the rampant destruction of land that is sacrificed to build houses, shops, industrial sites, vast parking areas and entertainment plazas, all for the sake of accruing more money. Money, that is of such magnitude the mind boggles, but it is never enough.

The loss of good land is merely swept aside. It is said that it takes a hundred years to create a deep fertile soil, so practically speaking, once it is gone, it is gone forever.

Every nation should endeavor to be self sufficient in feeding their own people, because one day, shortages will come upon us, be they overwhelming natural disasters, or the results of man-made folly and greed. Importing foodstuffs will become more difficult and increasingly more expensive.

For most people that may seem an exaggerated statement, but only living for the present is just to bury one's head in the sand. As it stands now British Columbia already imports vast amounts of fruit and vegetables from the U.S.A., Mexico, and other nations.

There must be countless people who would dearly love to farm the land, but here in the Fraser Valley, Langley in particular, land prices are beyond attainment for anyone except millionaires. Over 44% of land within the ALR is not farmed but held in anticipation of exclusion from the Reserve. Speculation forces land prices to climb higher while denying many people even a chance to farm the land. As Mark Twain said, "Buy Land - it is not being made anymore." It would be prudent for people to grow as much of their own food as is practically possible.

Personally, I do not see what is so difficult to just say "No" to any more exclusions of land from the A.L.R. "Without the ability to grow our own food, we leave our children and grandchildren held ransom to buy food on the world market, from whatever source, of whatever quality, at whatever price." [G.Runka, First General Manager of the B.C. Agricultural Land Commission].

**Jeanette Smith,  
Silverhill**





**Steller Jay,  
George Pennier,  
Mission**

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The Footprint Press is published as a non-profit community newspaper. Articles are submitted by dedicated residents wishing to share their vision of a more just and informed society, and who seek to live harmoniously with nature, in a shared environment. Circulation is 2000+. The paper can also be viewed on-line at [FootprintPress.ca](http://FootprintPress.ca) or contact us at [b.causs@gmail.com](mailto:b.causs@gmail.com) or 604 820-7592. Your support is appreciated and your participation is welcome. The opinions expressed in this publication are those of the authors and do not necessarily reflect the publishers as a whole or individually.

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