HABITAT CONSERVATION TRUST FUND
1981-2006

25TH

Achieving Conservation Results Together

25 Years

HABITAT CONSERVATION TRUST FUND

Message from the Lieutenant Governor

March 2006

Good wishes from Government House, the Ceremonial Home of all British Columbians. On behalf of the people of British Columbia and as a representative of Her Majesty, Queen Elizabeth, The Queen of Canada in this province, please accept best wishes to the Habitat Conservation Trust Fund as you celebrate your 25th Anniversary.

Supporting the conservation and enhancement of biological diversity, fish, wildlife and related habitat in addition to furthering knowledge and awareness, to date, the Trust has funded approximately $90 million in projects. Through partnership and funding, the Trust provides a program that is inclusive of those who believe in the values of conservation of the environment.

Many congratulations to the Habitat Conservation Trust Fund as you celebrate your exceptional accomplishments in saving the rich and diverse natural environment of British Columbia. Thank you on behalf all future generations for your foresight and commitment to our precious natural environment.

Sincerely,

Iona Campagnolo, PC, CM, OBC
Lieutenant Governor of British Columbia

Message from the Trustee

British Columbia is the most amazing province in Canada.

We have more habitat types and more fish and wildlife species than any other province, and British Columbians are proud of this nationally significant wildlife heritage.

The Habitat Conservation Trust Fund has a long and distinguished history of supporting important fish and wildlife projects in all regions of British Columbia. Funded by the licence surcharge dollars of anglers, hunters, guides and trappers, the Trust Fund has invested over $90 million in almost two thousand projects. This investment, which has levered over $250 million in partnership support, is a concrete expression of commitment from these very active members of BC's conservation community

2006 marks the 25th Anniversary of the Habitat Conservation Trust Fund, and I would like to say thank you to the supporters and partners of the Trust Fund. Your work and dedication is evident in all regions of BC, and the stories in this book highlight some of the important work that has been undertaken by the Trust Fund and its partners.

Nancy Wilkin
Trustee

HABITAT CONSERVATION TRUST FUND
1981-2006 25TH ANNIVERSARY

Message from the Chair

This year marks the 25th Anniversary of the Habitat Conservation Trust Fund, and its predecessor the Habitat Conservation Fund.

The concept of aTrust Fund started in 1981 from an idea put forth by the conservationists of this province - the anglers, hunters, guides and trappers of BC. The idea was a simple one: conservationists, having always paid their way through licence fees, were willing to pay more through additional surcharges on those licences, provided that they had a direct say in how these additional funds were invested.

As the surcharge collector, governments from that day to this have embraced this idea, and the past 25 years have demonstrated that HCTF is one of the most innovative and creative approaches to fish and wildlife conservation in BC.

There have been many changes to the Fund over the years, and recently the Fund was made independent from government. The Board of Directors is excited by the challenges and opportunities that lay ahead, and we will work hard to ensure that the next 25 years will see a Trust Fund that grows and continues to support conservation in all regions of British Columbia.

Harvey Andrusak
Chair

Our History - Projects that make a difference

For two-and-a-half decades, British Columbia's Habitat Conservation Trust Fund has worked in partnership with individuals and groups across the province, helping to restore, enhance and expand critically important habitat for fish and wildlife.

Canada's westernmost province is the most biologically rich and diverse jurisdiction in the country and a magnet for outdoor enthusiasts of all types. So it is fitting, then, that the province's anglers, hunters, guide-outfitters and trappers were among the first to recognize that in order to maintain British Columbia's unique character and its global reputation as a fish and wildlife haven regular investments needed to be made to hold on to those natural assets.

This year, as the HCTF celebrates its 25th anniversary, it is worthwhile pausing to celebrate some of its many achievements, to salute the visionary wildlife managers and organizations who lobbied for the unique funding formula that gave rise to its birth, and to recognize how, by working together, people can make lasting contributions to enriching our beautiful corner of the planet.

All too often, there is a tendency to dwell on the negative. While no one should lose sight of the fact that conservation efforts are a great challenge and sometimes fail to meet expectations, we do ourselves a disservice by not latching onto the affirmative. There is much to be proud of in the numerous projects that HCTF has funded over the years, and in the remarkable achievements that continue to be recorded by those individuals and organizations that carry out the work that such funding makes possible.

In the past quarter century, the HCTF has invested over $90 million in fish and wildlife enhancement and education projects around the province. Through that funding, which is made possible by surcharges that hunters, anglers, guide-outfitters and trappers pay on top of their annual licence fees, critically important wetlands have been preserved for waterfowl. Shallow lakes that once froze over in winter triggering large losses of fish have been aerated, allowing resident fish to survive and thrive in future years. Spawning channels have been dug, lined with gravel and filled with runoff, providing new and in many cases even better habitat for fish than nearby "natural" streams that may have been altered or harmed by potentially damaging activities such as logging. Areas of grassland that were overtaken by trees have been cleared of brush and burned to restore critical habitat for species such as bighorn sheep. And many other projects have been completed, without which it would be very difficult to know how many of some species we had, where they were found, and what was required to maintain and/or rebuild their numbers.

In addition to such positive contributions to fish and wildlife conservation, the HCTF has contributed more than $12 million towards the acquisition of key ecosystems in the province. Through these contributions, the HCTF has helped to conserve critical habitats such as grasslands, wetlands and riparian areas.

All of these achievements and many, many more had their roots in a decision by hunters, anglers, guide-outfitters and trappers in the late 1970s to approach the government of the day with a unique proposition. The resolution that these "shareholders" came up with set the tone for all that was to follow:

"We the resource users have always paid our way through licence fees. We are prepared to pay even more money, via an additional surcharge fee on our licences, provided that 1) this additional money is invested in enhancement, restoration and land acquisition projects that are over and above the fundamental conservation and management responsibilities of the Province of British Columbia and 2) we, the users, have a direct say in how the money is spent."

In a short publication like this, it is impossible to go into all the ins and outs of the discussions and negotiations that followed. Suffice to say, however, that the proposition proved to be a winning one, particularly when provincial biologists joined with hunters and anglers in encouraging the provincial government of the day to implement the idea.

Faced with a simple yet profoundly important proposition – that resource users would agree to a self-imposed surcharge on their licence fees in exchange for the government acting as collector and investor of those monies in conservation efforts – the provincial government in 1981 enacted new legislation creating the Habitat Conservation Fund, precursor to today's HCTF.

Esteemed University of British Columbia biologist, Dr. Ian McTaggart-Cowan would become the first person to head the HCF's advisory board. Twenty years later, reflecting on the tremendous support from the HCTF "shareholders", McTaggart-Cowan would say:

"Truly no other group in society has demonstrated such dedication to the preservation of wild places and wild creatures of our land."

In March 2005, the provincial government took the significant step of ensuring continuation of the HCTF's conservation efforts by placing it on a more independent footing, outside of direct government control. Most significantly, the changes allowed for an independent board, which today consists of two people appointed from the Ministry of Environment, two people appointed from the BC Wildlife Federation – one with fisheries expertise and one with wildlife expertise – one person from the Guide Outfitters Association of BC, and one person from the BC Trappers Association. Four more people sit on the board with an eye to ensuring that there is further expertise in the areas of conservation science, education, communications, business, law, financial management and fish, wildlife or habitat conservation management. Such changes bode well for another 25 years of conservation successes.

In the following pages, a series of on-the-ground and in-the-water conservation achievements are highlighted, helping to show that when the right dollars are invested in the right ways good things can and do happen.

Habitat Conservation Trust Fund

Spawning Channels

Each year, hundreds of school children travel by bus from Nelson to Kokanee Creek, a small tributary spilling into Kootenay Lake.

Named for the nearby lake's kokanee, the creek is one of the more important kokanee spawning habitats in the region. But here's the rub. They hardly even existed 24 years ago.

As the children watch the four-year-old fish making their final journey to the spawning grounds, they learn that when it comes to ensuring healthy generations of fish nothing, but nothing, matters more than the habitat in which the fish lay and fertilize their eggs.

That realization led visionary fishing enthusiasts and managers alike a quarter century ago to realize that if something wasn't done to expand such habitats, fish populations in Kootenay Lake and elsewhere were in trouble. Years later, thanks to their efforts and important funding from the Habitat Conservation Trust Fund (HCTF), kokanee numbers are stabilizing. And places like Kokanee Creek are a big reason why.

Kokanee Creek is known in fisheries parlance as an "artificial spawning channel" – a rather awkward phrase that fails to capture the excitement of what is going on. While such channels are the work of the human hand, they are a natural draw to fish and, in fact, display all the important physical characteristics that make for ideal "natural" spawning habitat in otherwise undisturbed valleys.

Unfortunately, undisturbed valleys are often at a premium. Rising water levels due to hydroelectric dams caused outright losses of some spawning streams, while logging and other developments sometimes altered peak water flows, burying spawning beds in layers of sediment.

Why should we care?

Well, think for a moment about major water bodies like Kootenay Lake, the Arrow Reservoir and Okanagan Lake. These are among the most widely used lakes in BC and also home to healthy populations of fish.

Channels partially or completely funded by HCTF include Meadow Creek, Kokanee Creek and Redfish Creek channels on Kootenay Lake; Bridge Creek on the east side of the Columbia River; and Mission Creek on Okanagan Lake near Kelowna.

The lynchpin species in such lakes is often kokanee. Second to rainbow trout in fishing popularity, young kokanee are also the essential food source for rainbow and bull trout as well as burbot and sturgeon. When kokanee numbers fall, other fish suffer soon thereafter.

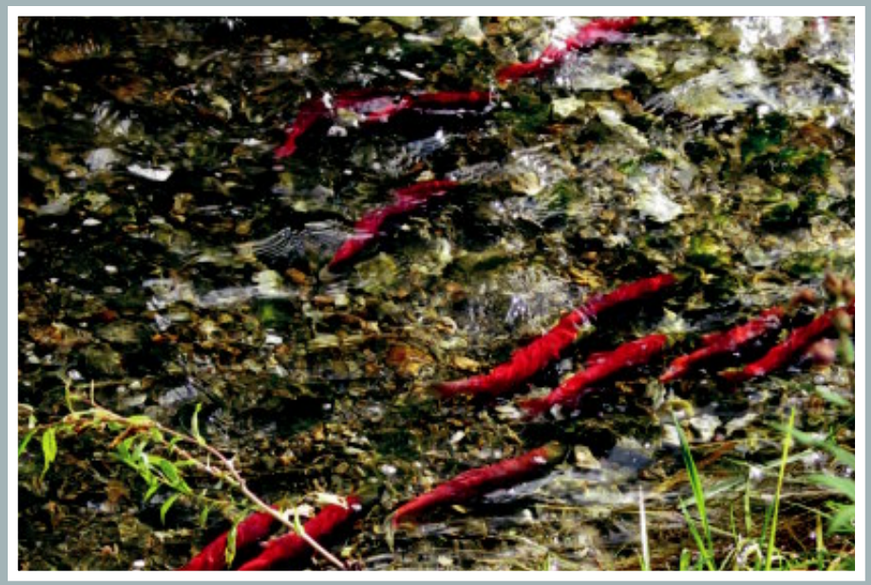
Harvey Andrusak, a retired fisheries biologist living in Nelson, is among those intimately familiar with both the declines that have occurred in local kokanee populations and how such declines were later addressed through building channels. *"In the natural streams where we did some work [before the artificial channels] we found out that usually only around 5 percent of the fish survived the fry stage,"* Andrusak says.

At such low survival, the ecological and social implications were profound. In just Kootenay Lake alone, rainbow trout and kokanee fisheries pump about $2 million into the local economy annually.

If the spawning channels could be improved on, Andrusak and others felt certain that it would stave off a collapse that it was in everybody's best interest to avoid.

Fittingly, much of the money that paid to do the work came from anglers themselves. Like hunters, guide-outfitters and trappers, anglers buy licences. Embedded in the licence fees are surcharges that the HCTF uses – to the tune of about $5 million per year - to reinvest in habitat restoration and enhancement projects across BC.

One of the HCTF's biggest success stories is the construction of spawning channels.



Channel sites are selected with a careful eye to how much water will naturally flow from surrounding hillsides, and in particular are designed with peak water flows in mind. They are then dug using large-track machines and lined with carefully selected rounded river gravel that is ideal for the needs of spawning fish.

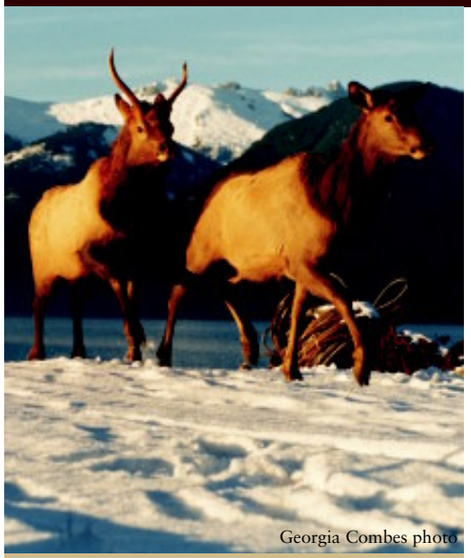
Channels partially or completely funded by HCTF include Meadow Creek, Kokanee Creek and Redfish Creek channels on Kootenay Lake; Bridge Creek on the east side of the Columbia River; and Mission Creek on Okanagan Lake near Kelowna.

Because of the careful selection and design of channel sites, amazing successes have been recorded over a short time in fish survival.

"Twenty-five percent of the fish are surviving to the fry state – so one out of every four," Andrusak says of the survival rates in the artificial spawning channels. *"That's a five-fold increase over survival rates in other nearby streams. And,"* Andrusak adds, *"none of these channels are stocked. They rely on resident fish returning to them naturally."*

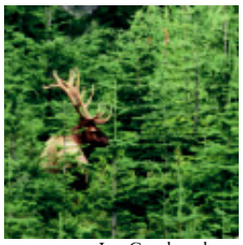
And all the success thanks to a trick of sorts – a trick that school children and fishing enthusiasts alike are glad was played.

Roosevelt Elk Relocation



Georgia Combes photo

"Our' total source population was just 27 individuals," Reynolds explains from his office in Sechelt. "And now, as a result of those elk being taken from Vancouver Island and brought here, we have around 600 animals here on the Mainland Coast. It's been a very successful project.
And the reason for that success is that we keep moving the elk around, helping them expand their range into vacant habitat."



Ian Gazeley photo

As a teenager in Alberta, Darryl Reynolds began doing something that would become a central part of his work as an ecologist and biologist with British Columbia's ministry of environment. He volunteered to help wildlife experts capture and conduct research on deer or elk, then relocate some of the captured animals to regions where their numbers were low or they were absent all together.

Today at age 35, Reynolds is a key player in what many consider one of BC's most successful wildlife rehabilitation projects - an ongoing effort to put elk back into the landscape in the river valleys of the Southern Mainland coast.

Smaller than moose, bigger than deer, Roosevelt elk are a "blue-listed" species in BC, meaning they are at risk of localized extinction, otherwise known as extirpation. A variety of factors explain why, but clearly agricultural and urban developments have taken their toll, as have previously uncontrolled hunts.

Social animals, elk tend to stick together. They don't readily colonize new ground, and their movements are limited, particularly in winter when they forage in valley bottoms, rarely ascending above 300 metres elevation.

Prior to 1987 when BC's Habitat Conservation Trust Fund began funding increased elk translocation efforts, Roosevelt elk numbers on the southern Mainland Coast were dangerously depressed. Aside from remnant herds of two to three animals, the only elk population in the region that had a chance of surviving was located just north of Bute Inlet and numbered perhaps 20 to 25 animals.

Two decades later, however, that sorry state of affairs has dramatically reversed. Thanks to work spearheaded by the environment ministry and with the assistance of numerous volunteers and conservationists, hundreds of elk now reside between Vancouver in the south and Powell River in the north. All of which became possible, initially, with just four translocations of animals from Vancouver Island to the Mainland Coast in the late 1980s.

"Our total source population was just 27 individuals," Reynolds explains from his office in Sechelt. *"And now, as a result of those elk being taken from Vancouver Island and brought here, we have around 600 animals here on the Mainland Coast. It's been a very successful project. And the reason for that success is that we keep moving the elk around, helping them expand their range into vacant habitat."*

Today, Reynolds refers to some of the Mainland Coast's elk as "nursery populations". As nursery numbers have gone up in places like Powell River and the Sechelt Peninsula, Reynolds and others have been able to capture between 40 and 50 elk each year and relocate them to new valleys short distances away. In this way, both the range and population of the region's elk continue growing, bringing renewed hope for reliably safe elk populations where once they were in danger of disappearing.

Chris Proctor photo

As the numbers have increased, something else has happened which few people would have predicted 20 years ago. Limited and controlled hunting is once again occurring on the Coast, with harvests set low enough that elk numbers continue growing.

Fittingly, ongoing translocation efforts continue to receive the financial support of the HCTF, now celebrating its 25th year as one of the province's pre-eminent conservation organizations. Each year, the HCTF spends about $5 million on wildlife translocations, prescribed burns, habitat restoration, stream enhancement, habitat acquisition and various stewardship projects that benefit the conservation of numerous fish and wildlife species. The money to pay for it all comes from surcharges that hunters, anglers, guide-outfitters and trappers pay on their licences – money that is then reinvested in the environment to perpetuate and, where possible, expand wildlife populations and the habitat on which they depend.

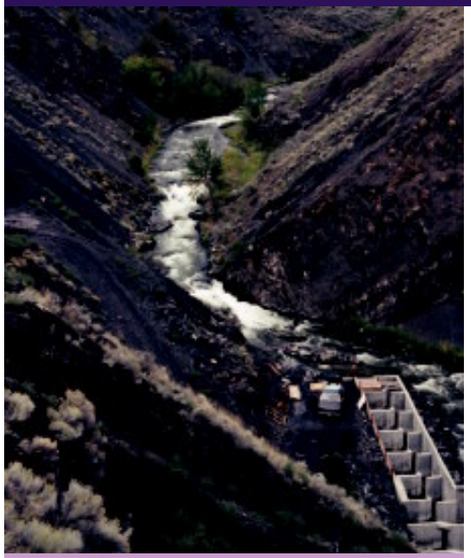
In addition to the highly successful rebuilding of Southern Mainland elk numbers, HCTF-funded translocations of other wildlife species have played a key role in the recovery and expansion of wild sheep populations here and in the United States and helped to reintroduce wood bison to the province – a species that had disappeared completely.

To be fair, not all translocations are successful. Woodland caribou transfers, for example, have fared poorly in the mountainous terrain of the southern Kootenays. But the lesson learned there – a vitally important one - is that in the absence of viable habitat for certain species, translocation efforts may be doomed.

But where the habitat is good and diligent efforts are made, the payoffs are handsome.

Just ask Darryl Reynolds. He's living – and fulfilling – his boyhood dreams.

Bonaparte River Fishway



Sometimes, nature throws a curve ball at fish.

The Bonaparte River is a case in point. For years, 100 kilometres of the river was out of reach to such fish as steelhead and salmon. A waterfall blocked the way. Consequently, anadromous fish, who begin life in freshwater, then migrate to the sea before returning to the waters they were born in, were denied access to a lot of prime habitat.

Fisheries scientists knew that if a way was found around the waterfall more anadromous fish could occupy a new niche upstream. Studies also showed that resident fish above the waterfall tended to be found in tributaries, leaving lots of room for anadromous fish within the main river itself. This meant that new fish would not displace the fish already there.

Armed with this knowledge, a plan was hatched in the late 1980s to build a "fishway" that would allow fish such as steelhead and Chinook salmon to journey into previously uncharted territory.

Today, the Bonaparte fishway is a resounding success, thanks in part to the Habitat Conservation Trust Fund, which this year celebrates its 25th anniversary. Created in 1981 by an act of the provincial government, the HCTF is a stand-alone operation that restores and enhances fish and wildlife habitats across BC. Often in partnership with local rod and gun clubs and others promoting conservation, the HCTF invests about $5 million annually in numerous projects. Fittingly, the money comes from surcharges on the licences anglers, hunters, guide-outfitters and trappers buy each year.

Built in 1988 at a cost of approximately $300,000, the fishway was an almost instant success. Shortly after construction, fish began moving up the new travel corridor. As Stephen Maricle, a biologist with BC's Ministry of Environment in Kamloops explains:

A further indication of delayed migration revealed itself when the fishway was shut for repairs and debris removal. "We found an unusual number of steelhead and rainbow trout," Maricle recalls. "The fish evidently wanted to go upstream, but they were not comfortable with the existing situation."

"We radio tagged 10 of the steelhead captured, and they spawned on average 20 to 40 kilometres upstream of the fishway in prime areas that we anticipated. The telemetry study showed that a large portion of the Bonaparte system would be utilized by steelhead, which was our primary reason for putting in the fishway in the first place."

Like any new project, the fishway had its hiccups, the most notable occurring about 10 years into its operation. The problem, Maricle explains, revealed itself when more radio tagged fish were followed. At least half the fish appeared reluctant to move up the fishway and through a trap located at the top end, a phenomenon fisheries scientists sometimes refer to as "delayed migration." The trap enabled fisheries managers to enumerate the number of fish moving through the new waterway.

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To get the optimum number of fish moving past the waterfall, an additional $65,000 in HCTF funds were spent. Some of the funding went to improving the fishway's entryway by creating an adjustable vertical drop from the fishway to the river channel itself. The drop made for a rapidly moving current that the fish could more easily detect. The remaining funds were spent at the fishway's top end. An additional compartment was built, greatly improving the fishway's water intake system by eliminating the buildup of debris at the intake. The rest of the funds went to installing a more "passive" electronic fish counter, essentially a tube through which migrating fish swam. Sensors in the tube picked up changes in the water's electrical conductance indicating that a fish was passing through.

The changes also had the benefit of reducing annual operating costs by $19,000 to $20,000.

Of greater importance, however, is that the fishway is doing better than ever. More fish, including steelhead, Chinook salmon and rainbow trout, are finding new habitats where previously they were absent.

All of which is good for the environment and the local economy. While steelhead are in need of protection, rainbow trout stocks appear healthy. On the nearby Thompson River, which the Bonaparte ultimately feeds into, a world class rainbow trout fishery is growing in renown, meaning more angling dollars for local communities.

"That fishery," Maricle adds, *"has almost certainly been enhanced by the Bonaparte fishway."* Something for which a whole bunch of angling enthusiasts casting for trout, can pat themselves on the back for helping to pay to put in place.

Prescribed Burns

In 2003, wildlife biologists set out to rehabilitate a landscape near the Okanagan community of Oliver.

Like many landscapes in British Columbia's southern Interior, this particular patch of ground had changed dramatically over the course of several decades. And the biggest change, by far, had been a steady increase in the number of trees.

Often, and with good reason, trees are seen as a sign of natural health. They shade the ground and moderate water flows. They offer shelter for humans and animals. And they provide habitat, for birds, squirrels and the like.

But too many trees, in this case, were bad. Certain wildlife species like bighorn sheep and mule deer were losing the open park-like settings that they thrived in. In a setting where trees are fewer in number and grasses are prolific, wild sheep and deer, with their alertness and powerful eyesight, are better able to see natural predators such as cougars. Thin out the trees, and you make it very difficult for cougars to hide in dense cover.

Which is why Tom Ethier and other wildlife and land managers wanted parts of the Vaseux area cleared of unnaturally thick vegetation, so that fires could be judiciously used to restore habitat for mule deer and bighorn sheep. The sheep, in particular, were suffering, having lost the use of the area as a prime lambing ground.

Ironically, much of this important restoration work, funded through a grant from British Columbia's Habitat Conservation Trust Fund (HCTF), proceeded in 2003 – a year that in the annals of forest fire-fighting history was one of the most devastating in the province. As it turned out, however, the restoration work benefited not only the region's wildlife, but also assisted in reducing the impact of a natural forest fire that later swept through the same area.

"Where we had done the treatments was where the forest fire was going. The fire was a Category 6. Trees were exploding. But as soon as the fire hit the treated area, it lost its catastrophic character. It started to creep, and it became more manageable. The side benefit to this work – and when society later looks at it, they may see it as the major benefit – is that the fire became a more natural fire."

As Ethier recounts:

"Where we had done the treatments was where the forest fire was going. The fire was a Category 6. Trees were exploding. But as soon as the fire hit the treated area, it lost its catastrophic character. It started to creep, and it became more manageable. The side benefit to this work – and when society later looks at it, they may see it as the major benefit – is that the fire became a more natural fire."

Often, we tend to think of wilderness as being in some kind of steady state. But this view is not borne out by the facts. Landscapes are always in flux. And fires are often one of the biggest catalysts for change and renewal.

This is why prescribed burns – deliberately set fires – are of interest to wildlife managers and why the HCTF, which invests approximately $5 million per year in habitat conservation and restoration projects, has financially supported various prescribed burn projects in years past. Carefully controlled and deliberately set fires help to expand grasslands and clear away at least some tree cover in areas where, historically, fewer trees were found.

In parts of the Okanagan, trees encroaching on once open areas are proving not only bad for certain wildlife species, but also human communities.

Ethier, who was head of the Environment Ministry's Fish and Wildlife Section in Penticton when the Vaseux burn was coordinated, is now the Ministry's deputy director of the Fish and Wildlife Branch in Victoria. He says comparison of air photos taken 60 years apart reveals a startling transformation in many parts of the Okanagan. Where once trees numbered in the range of 70 per hectare, they now number 700.

"When you lose open ground to so many trees," Ethier says, *"you lose the quantity of the ecosystem – meaning the available forage for animals - and you end up losing the quality. Bunchgrass stands become pine grass stands."* And while such changes in grasses may seem inconsequential to us, they are of major importance to animals that must forage for their survival.

Wildlife managers believe that fires used to routinely occur once every five to 15 years in ecosystems where bunchgrass and ponderosa pine trees were common. The fires didn't kill all trees, but did keep areas more open. Now, due in large measure to modern suppression efforts, such fires may occur 60 or more years apart, leading to steady losses of grasslands.

If the end result of prescribed burns is that both wildlife and human communities are better protected from more devastating and, in many cases, harder to control wild fires, who would argue with that?

Steelhead Habitat

On the Keogh River, for example, HCTF funds have been invested to build log jams and introduce large boulders to the river to increase the rearing habitat for young fish. Riverbanks have also been seeded to prevent erosion, and ditches and culverts have been built to divert sediment-laden water away from river spawning channels. Too much sediment loading in spawning channels can be highly detrimental to this vitally important habitat.

Seemingly bleak stories sometimes have silver linings.

Take the case of steelhead. Anglers have a near religious reverence for these fish, which are related to salmon. But unlike salmon, which return from the ocean to their native streams, spawn and then die, steelhead often go back to the ocean following their freshwater spawn - a pattern that may be repeated once or twice again over several more years.

Unfortunately, steelhead have been on a troubling decline in recent decades, a decline that confounds scientists and anglers alike. The drop off has been particularly precipitous in freshwater courses on eastern Vancouver Island and the southern Mainland, less so to the north.

Craig Wightman, a Ministry of Environment fisheries biologist for the past 34 years, is one of a number of scientists to have delved deeply into the study of BC's steelhead populations. With the support of the Habitat Conservation Trust Fund, he has helped spearhead one of the most comprehensive counts of steelhead stocks ever conducted.

Effective conservation really begins with understanding what you have. With steelhead, the numbers arrived at show that the species is at a critical juncture. One of the most well understood steelhead rivers in the province is the Keogh. Wightman and others now know that young steelhead which used to leave this river near Port Hardy for the ocean could be expected to have survival rates of about 15 percent. But beginning around 1995, survival plummeted to four percent. *"And in most recent years,"* Wightman says, *"it's been about two percent."*

Fundamental shifts in the ocean environment linked to climate change may explain these declines and others of similar magnitude in rivers up and down Vancouver Island and the southern Mainland Coast. A comprehensive tracking project spearheaded by fisheries scientist David Welch may shed further light on this by electronically tracking tagged fish as they migrate in the ocean between here and southeast Alaska.

So what, then, is the silver lining?

The answer lies in freshwater habitat, without which there would be no steelhead, cutthroat trout, Dolly Varden or salmon.

While little can be done about changing ocean conditions, there is much to be gained from conserving, rehabilitating and expanding freshwater fish habitats. Which is precisely where Wightman and others are placing their efforts. Over the past several years, the HCTF has provided more than $500,000 per year to do enumeration and habitat restoration work aimed at saving this most important fish species on Vancouver Island and the Lower Mainland.

While enumeration delivers sobering news about steelhead declines, habitat restoration is helping to rebuild resident fish stocks. All up and down BC's coast, rivers and streams have been altered due to various human activities from logging, to urban developments, to dams. Often, the end results are dramatically simplified rivers, lacking in proper gravel beds for spawning and deeper pools of still or slow flowing waters where young fish can rear in safety.

On the Keogh River, for example, HCTF funds have been invested to build log jams and introduce large boulders to the river to increase the rearing habitat for young fish. (Similar work has recently occurred on the Seymour River near Vancouver). Riverbanks have also been seeded to prevent erosion and ditches and culverts have been built to divert sediment-laden water away from river spawning channels to low-lying forestlands. Too much sediment loading in spawning channels can be highly detrimental to this vitally important habitat.

"These and other initiatives continue to have huge benefits," Wightman says. *"The improvements we've made in that watershed and others have resulted in generally increased overall fish populations. The steelhead stocks clearly are not as good as we hoped for. But we have seen improving trends in populations of pink salmon, Dolly Varden, cutthroat trout and Coho salmon in the same watersheds."*

And this is good news for anglers who may or may not know that a portion of the monies they spend annually on fishing licences gets reinvested through the HCTF in a variety of habitat conservation initiatives that make continued angling possible.

"We're not going to see steelhead numbers back to fishable levels any time soon unless something fundamental happens at sea," Wightman says. *"But we can insulate the anglers, by providing better numbers of other species that typically attract fishermen. And that's what this habitat enhancement work is doing."*

Wild Sheep Projects

Daryl Stepaniuk photo

While many people may not know it, British Columbia is unique in North America in having both species of wild bighorn sheep, which includes California bighorn and Rocky Mountain bighorn, and the thinhorned species, which includes Stone's sheep and Dall's sheep. Half of the world's California bighorns are found within our borders and fully 85 percent of Stone's sheep.

Daryl Stepaniuk photo

For two decades, Ray Demarchi has been piecing together a most trying puzzle.

A professional wildlife biologist with forty-plus years' field experience, Demarchi has had a life-long interest in bighorn sheep. But like many people who care about British Columbia's spectacularly diverse animal life, Demarchi knows better than most that in order to protect what you love you must know what you have.

Unfortunately, such basic information is sometimes lacking when it comes to key species like wild sheep. Why? Probably because for years we've taken for granted what we have. Also, much of BC's landscape is remote and rugged. To truly know what is out there, takes extraordinary effort, particularly when dealing with iconic species like bighorn sheep, of which there are several distinct populations dispersed over a vast area.

"Nobody has ever comprehensively mapped out all the bighorn sheep ranges in the province," Demarchi says from his home in Duncan where the still very active biologist recently "retired" after nearly 40 years service with BC's environment ministry.

"You have to know where they are in order to protect them," Demarchi continues. *"You can't just say 'well, they're out there.' With a developer, you have to tell them where the animals are in order to provide the protection they need. The first order of business is to find out where they are. The second is to find out when they are there. And the third is how many."*

Later this year, thanks to a grant from the Special Permits Account of the Habitat Conservation Trust Fund, Demarchi will have fit the last piece into a very complex puzzle. Work in the Peace River region, the last remaining part of BC not yet mapped for its sheep habitat, will be complete, capping an effort Demarchi began two decades ago in and around Cranbrook.

When that last piece falls in place, a major milestone will have been completed regarding wild sheep. We will at last know where they are found. From there, it will become easier to learn when they are found, in what places and in what numbers. That, in turn, will make it easier to ensure that their habitat is adequately protected.

While many people may not know it, British Columbia is unique in North America in having both species of wild bighorn sheep, which includes California bighorn and Rocky Mountain bighorn, and the thinhorned species, which includes Stone's sheep and Dall's sheep. Half of the world's California bighorns are found within our borders and fully 85 percent of Stone's sheep.

In nearly 25 years study, much of it supported by the HCTF, which takes a portion of the money anglers, hunters, guide-outfitters and trappers pay for their licences, and reinvests it in various habitat conservation and enhancement projects, far more has also been learned about our wild sheep populations.

First, it turns out that one of the greatest threats to wild sheep is their close cousin, the domesticated sheep, something that wildlife biologists expressed heightened concern about in the 1990s. A bacteria commonly associated with domestic sheep and which poses no risk to them can be deadly to wild sheep that have built up no immunity to it.

The concerns turned out to be more than justified. Not long after the California Bighorn Sheep status report was released, 60 per cent of the wild sheep herd died in the Okanagan over a matter of weeks as a result of suspected bacterial transfer between domestic and wild sheep.

Daryl Stepaniuk photo

Since then, local wildlife officials have worked closely with local governments, rural landowners, the Ministry of Agriculture and others to come up with plans to lessen contact between the two sheep populations. And some successes have been recorded. For example, one local sheep farmer voluntarily eliminated his herd after learning of the problems the wild sheep faced.

In other work funded by the HCTF, biologists have learned much about other important issues, in particular the habitat needs of wild sheep. Wild sheep roam from mountaintops to valley bottoms, depending heavily on grasslands for survival. Studies confirm that wild grasslands are being lost, in part because efforts to suppress forest fires are resulting in trees overtaking grasslands. This important finding is allowing wildlife biologists to work more closely with land managers, including foresters, to plan treatments favourable to wild sheep and other grass-loving species. One promising treatment is controlled fires that clear away brush and restore grasslands. The big remaining challenge is finding ways to do controlled fires over large enough areas that suitably big areas of new grassland are created.

Lake Aeration

The trick is to enclose and submerge nearly everything, with just a small amount of equipment lying above the surrounding ice to vent the oxygen bubbles. The new system relies on a series of large diameter pipes, boxes and, of course, pumps. Uplifted water is oxygenated in underwater, boxed chambers, then sent back to where it came from and released.

In cold winters fish can have a terrible time, especially if they swim in shallow, frozen over lakes.

With swimming areas reduced due to ice build-up and the lake water no longer mixing with the air above, resident fish can sometimes die in alarming numbers due to lack of oxygen. The problem is even worse in lakes with high amounts of organic material, because that material requires oxygen to break it down.

This is not good news in a province that has tens of thousands of fishing enthusiasts, and which annually draws anglers from across Canada, the United States and overseas. Lakes devoid of fish just aren't a draw to fly fishing or trolling enthusiasts alike.

About 30 years ago, however, environment officials in British Columbia began working with equipment that "aerated" or put oxygen back into candidate lakes to stave off winter kills of fish.

One person leading that charge was Ken Ashley, a fisheries researcher who worked with the provincial environment ministry for 28 years before taking a job with the Greater Vancouver Regional District.

Ashley's aeration work picked up significantly after 1981 when a new organization, now known as the Habitat Conservation Trust Fund, was born. The HCTF celebrates its 25th anniversary this year and spends on average $5 million annually on habitat restoration, enhancement and acquisition projects around BC. With much of its funding drawn from surcharges on angling licences, aeration projects are of natural interest to the HCTF.

Under Ashley's and others' supervision some 30 lakes were eventually aerated, most on the sometimes frigid Interior plateau, between Williams Lake in the north and Penticton and Princeton in the south. A smattering more in the Cranbrook area as well as on Vancouver Island and Saltspring Island were similarly treated.

The technology was simple. Hoses were either directed from shore to deep waters near the lake's centre, or floating platforms were anchored in the water with hoses and pumps. In either case, compressed air pumped underwater caused bubbles to percolate to the surface. In this way, oxygen was returned to the water, resident fish survived harsh winters, and anglers reaped the benefits from their conservation investments.

If the program had a drawback, it was this: The pumping constantly brought lake water, which was slightly warmer than the air above, to the surface. This resulted in a large area of the otherwise frozen surface – sometimes 50 metres across - being ice-free.

Despite posting signs notifying prospective skaters, ice fishers and others that operating equipment meant that a small portion of certain lakes were ice-free and potentially dangerous, the provincial Attorney General's office ultimately concluded that such precautions were insufficient to ward off potential lawsuits. A decision was made that the openings in the ice would have to be fenced.

Given the time and expense in fencing, a number of lakes were no longer aerated and the threat of renewed winter die-off of fish re-emerged.

Thanks, however, to a $70,000 HCTF grant, Ashley believes he has solved the riddle of how to pump oxygen into lakes during the winter without creating dangerous open ice areas.

The trick is to enclose and submerge nearly everything, with just a small amount of equipment lying above the surrounding ice to vent the oxygen bubbles. The new system relies on a series of large diameter pipes, boxes and, of course, pumps. Uplifted water is oxygenated in underwater, boxed chambers, then sent back to where it came from and released.

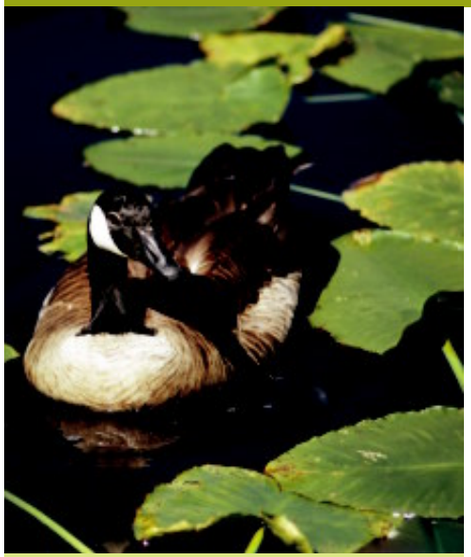
"The system," Ashley says, *"contains the water and the oxygen throughout the whole process until it is returned back to the bottom of the lake or middle layer."*

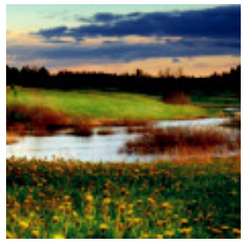
There is a catch, however. The new system, tested on Menzies Lake near Merritt, is more costly to run. The old system relied essentially on the air we breathe, which is 21 percent oxygen. Air pumped into the lakes, coupled with resulting holes in the ice, supplied the needed oxygen. With ice-covered lakes and aeration essentially restricted to submerged four-foot by eight-foot boxes, liquid oxygen must be used. And liquid oxygen is 100 percent pure, extremely cold, and costly to transport and handle.

"We essentially turbo charge the oxygenation process by using pure oxygen rather than air," Ashley explains, adding that the final numbers on what such systems cost has yet to be determined.

Once it is, however, it isn't much of a leap to believe that many fishing enthusiasts will say it is money well spent.

Wetland Restoration





In the high, rolling and often dry country of British Columbia's southern Interior, wetlands are a vital natural habitat. And whether such wetlands are natural or helped along by the human hand is often of no concern to fish or waterfowl.

Such is the case on the parched plateau above Kamloops Lake.

The landscape, typical of these parts, is in the transition zone between dry forest and natural grassland. Open and rolling, it is ideal for cattle grazing. But water is scarce. Ensuring that there is enough for thirsty cows has always been a challenge for the region's ranchers.

It was that reality that led early ranchers to set about constructing small dams and ditches to convey water. The end result was a number of small lakes and associated wetlands that would have positive ripple effects over the decades.

The new water bodies had the desired effect for ranchers, but also proved a boon to anglers, hunters and wildlife enthusiasts alike.

The wetlands in particular were a magnet to all manner of ducks – Mallards, Canvasbacks, Scaups, Buffleheads, Barrow's Goldeneyes and Wigeons – among others, and later, following stocking, the lakes became known for their trout as well.

Over the ensuing decades, however, things began to change. Wetlands dried up as water levels dropped. The lakes became shallower. In winter, when they froze, there wasn't enough oxygen for fish, many of which died. A biologically rich and diverse landscape was imperiled.

Enter Ducks Unlimited Canada, the Ministry of Environment and the Habitat Conservation Trust Fund.

"The infrastructure which made the lakes possible in the first place – the dams and conveyance ditching – was failing. As a result, water levels in the lakes and wetlands were dropping," says Brad Arner, manager of conservation programs for Ducks Unlimited Canada in the Intermountain/Peace Region, which encompasses much of Interior BC.

The wetlands in particular were a magnet to all manner of ducks – Mallards, Canvasbacks, Scaups, Buffleheads, Barrow's Goldeneyes and Wigeons – among others, and later, following stocking, the lakes became known for their trout as well.

Starting in the mid 1990s, Ducks Unlimited Canada began working with local Fish and Wildlife officials in Kamloops to try and figure out a way to revitalize the lakes and wetlands. Fish and Wildlife, in particular, played an important role in bringing local ranchers and First Nations on side. In 2001, armed with a plan to rebuild the dam, reconstruct a spillway and fortify an outlet so that water levels were restored and wetlands no longer in danger of losing their water too quickly, they approached the HCTF for funding.

Such projects have always been attractive to the HCTF, now celebrating its 25th anniversary. Long associated with the provincial Ministry of Environment but today a stand-alone entity, the HCTF draws almost all of its funding from surcharges on hunting, angling, guiding and trapping licences. The money is then plowed back into various conservation-focused projects that effectively ensure that there is important habitat for fish and wildlife species, without which there would be no hunting, no fishing, or wildlife viewing.

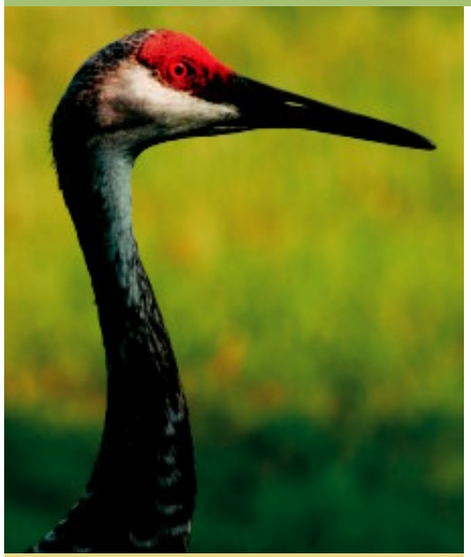
HCTF saw the benefit of the plan and contributed more than $300,000 towards the project. Tunkwa and Leighton lakes, along with their associated wetlands and marshes, saw their water levels restored to previous levels.

"The dams at Tunkwa and Leighton lakes would have been condemned. They would either have had to come out or be replaced. And if they came out, they would have dropped the water level by several metres in the lakes, which would have meant an end to fishing. Both ranchers and hunters would have been losers as well," Arner says.

Successes at Tunkwa and Leighton lakes later led to more habitat restoration efforts at nearby Six-Mile Lake. Fish kills there were becoming a problem due to declining water levels, and local wetlands were little more than wet meadows. Putting money into shoring up failing infrastructure once again had the desired effect of ensuring the survival of valuable lake and wetland habitat in an area where it was in short supply.

As North America's pre-eminent wetland conservation organization, Ducks Unlimited Canada has a commendable record. The successes recorded on the plateau above Kamloops Lake, moreover, led to an even broader "wetland partnership" with the HCTF and Ministry of Environment.

In 2005-2006 and in the three years previous, HCTF channeled a further $675,000 into important wetland conservation efforts. Under the funding, Ducks Unlimited Canada used the money to maintain wetlands that it had already protected across BC. But more importantly, the new funding gave it the leverage to attract further funds from other like-minded conservation organizations. And with it, it is hoped, perhaps some more successes along the lines of those recorded at Tunkwa, Leighton and Six-Mile lakes.



Delkatla

On British Columbia's rugged coastline, stopover areas for migrating birds, are at a premium, which is why a certain chunk of land on northern Graham Island variously known as Haida Gwaii or the Queen Charlotte Islands is so important.

In a quirk of coastal geography, the area around the community of Massett is flat and much of it boggy. For years, a good chunk of the area was also a rich saltwater marsh – a veritable magnet to birds – known today as Delkatla Slough.

"As trumpeter swans, ducks, geese and others come out of Russian Siberia, the Yukon or Northwest Territories heading south along our coast, they encounter an awful lot of steep terrain, whereas the northern tip of the Queen Charlotte Islands is very flat and boggy. So the birds can make an important stop there to rest and feed. And, of course, that becomes one of the last stops when the same birds fly north in the spring, heading toward their nesting grounds," explains Les Bogdan, manager of conservation programs for Ducks Unlimited Canada's coastal region.

In the 1960s, however, something happened to profoundly alter the slough, a change that Bogdan and others loudly decried. Had they not, this critical pit stop on the western flyway may have been lost forever.

The change involved construction of a causeway across the entrance to the slough. Culverts were put in place to allow the area behind the causeway to drain but saltwater was for the most part eliminated from the marsh.

The result, says former provincial Ministry of Environment biologist, Rodger Hunter, was the relatively rapid degradation of an extremely valuable coastal wetland habitat.

"There was a real need to re-establish total tidal circulation in the slough, to get it back to a natural state as quickly as possible. Today, there's an incredible array of wildlife there from raptors, to migratory waterfowl, to shorebirds and migratory upland birds."

"Estuaries and coastal wetlands like Delkatla Slough are among the most productive ecosystems in the world. The causeway changed that. Salinity levels dropped. Weed species like alder and the sedge Juncus effuses, that were of little value as forage for water birds, encroached. Because those [weed] species weren't browsed, they became well established, cut off visibility, and rendered significant areas of the slough useless for shyer species that need to see all around themselves to feel secure."

Happily, the unfolding disaster was eventually averted. Local residents, Ducks Unlimited Canada, the Canadian Wildlife Service, The Nature Trust of British Columbia and others started to lobby for a solution to the crisis. And when one was found, BC's Habitat Conservation Trust Fund stepped in with $100,000 to help restore the slough to its earlier diversity and majesty. Further funds, including $68,000 from the Pacific Estuary Conservation Program, were also earmarked for the project.

The solution was essentially to breach the causeway, then span the gap with a bridge. In that way, the natural influences of incoming and outgoing tides were restored to the slough.

Now in its 25th year, the HCTF was created by provincial legislation in 1981. A defining characteristic of the organization, a stand-alone entity, is that the $5 million or so that it spends annually on habitat restoration and enhancement projects in BC come from surcharges that hunters, anglers, guide-outfitters and trappers pay on their licences.

Ducks Unlimited Canada photo

In this way, people who directly benefit from fish and wildlife put money back into improving the habitat without which there would be no fish and wildlife for us all to enjoy.

In its quiet way, the HCTF and supporting organizations have been recording significant conservation achievements that often go unnoticed by all but those living closest to where the projects take place or those who worked directly on the project themselves.

As Bogdan explains:

"There was a real need to re-establish total tidal circulation in the slough, to get it back to a natural state as quickly as possible. Today, there's an incredible array of wildlife there from raptors, to migratory waterfowl, to shorebirds and migratory upland birds."

Hunter, who returned to look at rebounding life in the slough last year, a decade after the causeway was breached, concurs.

"We saw lots of those magnificent dark Canada Geese and there were a number of sandhill cranes in there manipulating the habitat. We also saw juvenile Coho salmon in there rearing again. There's more opportunity there for all kinds of fish and wildlife."

A wonderful outcome, indeed, both for the people who call this part of the world home, and for all manner of avian visitors, looking for a temporary refuge on a grueling north-south migration where the pit stops are few and far between.

By getting large numbers of teachers thinking about the environment, students get the opportunity to develop a conservation ethic through any one of a number of courses they may take from kindergarten through Grade 12.

Wild BC

Conservation is all about holding on to what we have. That means looking ahead. And when we look ahead, our thoughts naturally turn to children. For it is our children and their children that must pick up where we left off.

Such thinking has always been a core belief of the Habitat Conservation Trust Fund, which early on in its 25-year history decided that focusing on education could have big downstream payoffs for conservation of fish and wildlife species and their unique habitat needs here in British Columbia.

As the richest repository of plant and animal life in Canada, BC is uniquely positioned to be at the forefront of conservation efforts. And among the organizations playing a lead role in those efforts is the HCTF.

Twenty-five years ago when an act of the provincial legislature created what became the HCTF, a simple idea was born. Money collected by the province in surcharges on hunting, angling, guide-outfitting and trapping licences – approximately $5 million per year - was reinvested through the HCTF in a variety of conservation initiatives.

Much of that work, naturally enough, was on the ground. Money was spent to build spawning streams to maintain and enhance kokanee populations. Additional money was spent rehabilitating lakes and wetlands Further funds were spent transplanting wild sheep and elk to enhance population numbers. And on and on it went.

But in tandem with these projects, the HCTF diligently put money aside for educational initiatives. Six years after its creation in 1981, the Ministry of Environment and Lands and HCF brought the national Project WILD program into BC, which today is spearheaded by Wild BC. Wild BC now manages a family of environmental education programs and resources and provides high quality training sessions throughout the province.

The idea behind the initiative was straightforward. It would provide teachers with training so that they, in turn, could go back to their schools and teach their students about a range of environmental issues.

In the next 18 years, more than 27,000 people of all ages in the province were trained in environmental education. Such training runs the gamut from workshops on water and wildlife habitat, to the important role that trees play as wildlife hosts, to global warming and how individuals can make a difference by getting involved in local action projects.

And it is of incalculable value.

Why? Because the environment is not, per se, part of the formal curriculum in elementary and secondary schools. Yet it touches on many things. As the mystical landscapes of Emily Carr attest, our environment influences art. As increasingly elaborate computer-generated maps of our natural landscapes suggest, it influences math and geography. By getting large numbers of teachers thinking about the environment, students get the opportunity to develop a conservation ethic through any one of a number of courses they may take from kindergarten through Grade 12.
Susanna Solecki, who has a degree in environmental studies from the University of Victoria and is a former park naturalist, today teaches middle school in Victoria. She is also one of the teachers who teaches teachers through Wild BC, something she has done for the past 10 years.

"An overriding program objective," Solecki says, *"is to make people environmentally literate, to equip them with the facts that allow them to make informed decisions."*

"Children," Solecki adds, *"are hungry for environmental information. They often stop teachers to ask questions about global warming or sometimes much more focussed questions like why the Strait of Georgia's resident killer whales are so laden with toxins. So for teachers to have access to workshops and materials that readily provide what they need to incorporate the environment into their curriculum is a real bonus."*

The challenge is to make sure that the materials are not pieces of advocacy, but rather straight ahead, accurate information.

"The bulk of our stuff falls into the science curriculum," Solecki says. *"But it also dovetails with other parts of the curriculum such as the fine arts, language arts, mathematics and physical education. And the teachers are excited by the ready-to-use activities that we provide. Each of our lessons provides a background section in addition to the activity that the teachers and students can do. It gives the teachers the resources they need to tie in with the curriculum, what they are required to teach."*

And from a future perspective, those are resources that will help to keep the conservation ethic alive and well in British Columbia.

How to apply for project funding

If you have an idea that you think will have a positive impact on fish and wildlife species and their habitats in your area, you may be eligible for Trust Fund help in achieving your goal.

Conservation organizations, private industry, and members of the public are encouraged to submit proposals.

To apply for HCTF funding, applicants must first submit a two-page Letter of Intent by October 1 each year. If this is approved, you will be asked to submit a full proposal.

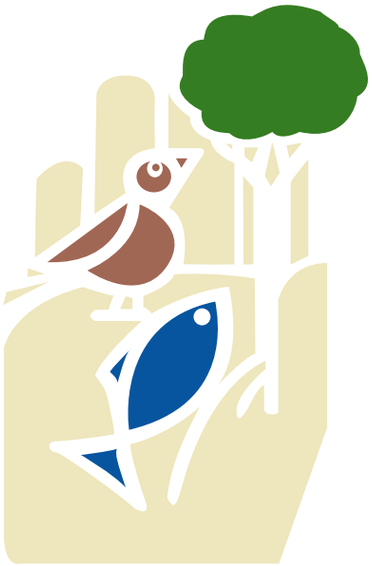
Not all applicants have the necessary technical expertise to develop a full proposal. If this is needed, you can write a Letter of Intent requesting Seed Funding. HCTF makes grants of up to $5,000 to help applicants pay for planning and research.

Projects are evaluated by review committees on the basis of technical merit, public demand and environmental need. Monitoring and evaluation is a significant element, needed to measure the progress and success of individual projects and to make sure that HCTF dollars are being spent effectively.

For more details on how to apply, please visit www.hctf.ca or call HCTF staff at 1-800-387-9853

Habitat Conservation Trust Fund

A Helping Hand for Grassroots Projects



Starting in 1973, eight years before HCTF was created, individuals and grassroots organizations have been supported by the Public Conservation Assistance Fund to carry out local conservation projects that need some financial help to implement. Originally part of the provincial ministry of environment, then jointly funded by the ministry and HCTF, the Fund is now solely supported by HCTF.

Projects emphasize volunteers, community involvement and participation as well as conservation.

To help as many projects as possible each year, the grants are $10,000 or less and a very wide range of activities are eligible, so long as they make a difference for wildlife or fisheries conservation. Multi-year projects are possible, as are projects partnered with other groups.

To be funded, a project needs lots of volunteer hours and the support from the provincial government's regional environmental stewardship manager. Like all HCTF grant applications, a technical review team assesses each project on its individual merits before awarding funds.

Examples of past successes include installing osprey nesting platforms, setting up temporary fencing to encourage forage regrowth, removing damaging debris from lakes and streams.

The full range of examples of the more than 600 projects funded over the years includes:

- **Improving spawning grounds**
- **Building bird houses**
- **Planting shrubs for cover**
- **Tagging or monitoring animals**
- **Restoring riparian area**
- **Restoring grasslands**
- **Building waterfowl nesting floats and boxes**
- **Fencing**
- **Improving winter range**

To apply for Public Conservation Assistance Fund grassroots volunteer projects of up to $10,000, your Letter of Application needs to be submitted by May 15.

Celebrating 25 Years of Partnerships

For 25 years, resource users, governments, businesses, environmentalists, scientists, non-profit agencies and community organizations from around the province have used HCTF funding to cooperatively carry out conservation projects that benefit us all.

BC Conservation Foundation
BC Lake Stewardship Society
BC Wildlife Federation
BC Wildlife Federation Wetland Education Program
Bertrand Creek Enhancement Society
British Columbia Trappers Association
Bulkley Rod & Gun Club
Bulkley Valley Centre for Natural Resources Research & Managment
Campbell River Fish and Wildlife Association
Canal Flats Wilderness Club
Cariboo Cattlemen's Water Stewardship Council
Cawston Nature Club
Charlie Lake Conservation Society
Chilliwack Fish & Game Protective Association
Chilliwack River Action Committee
Chilliwack/Vedder Watershed Restoration Society
Clinton and District Outdoor Sportsman Association
Courtenay Fish & Game Wilderness Watch Program
Cowichan Estuary Preservation Society
Cowichan Lake Salmonid Enhancement Society
Cranbrook Rod & Gun Club
Creston Valley Wildlife Management Area
Delkatla Sanctuary Society
Ducks Unlimited Canada
East Kootenay Hunter's Association
East Kootenay Wildlife Association
Elk Valley Stewardship Centre
Family Fishing Weekend Society
Fanny Bay Salmonid Enhancement Society
Fernie Rod & Gun Club
Finnish Canadian Fish & Game Club
Fraser – Fort George Regional Museum
Fraser River Sturgeon Conservation Society
Friends of Mission Creek
Grand Forks Sheep Committee
Grizzly Angler Association
Guide-Outfitters Association of BC
Habitat Acquisition Trust
Haig-Brown Kingfisher Creek Society
Hoy/Scott Creek Streamkeepers
Kamloops & District Fish & Game Club
Kamloops Flyfishers Association
Keremeos Cawston Sportsmen's Association
Lake Kathlyn Protection Society
Lake Windermere District Rod & Gun Club
Langley Environmental Partners Society
Mid Island Castaway's Flyfishing Club
Mid-Island Wildlife Watch Society
Ministry of Environment
Morrison Creek Streamkeepers
Muskeg Scuba Divers
Nanaimo Fish & Game Protective Association
Naramata Citizen's Association
Naramata Parks & Recreation
Nile Creek Enhancement Society
Oceola Fish and Game Club
Okanagan Region Wildlife Heritage Fund Society
Oyster Bay Streamkeepers
Parksville - Qualicum Beach Fish & Game Association
Powell River Salmon Society
Qualicum Beach Streamkeepers Society
Revelstoke Bear Management Committee
Salmon Arm Fish & Game Club
Salmon Arm Wilderness Watch
Seymour Salmonid Society
Somenos Marsh Wildlife Society
South Peace Wilderness Society
Sparwood & District Fish & Wildlife Association
Spruce City Wildlife Association
Squamish Streamkeepers
Summerland Sportsmen Association
Sunshine Coast Salmonid Enhancement Society
Swan Lake Enhancement Society
The Land Conservancy of BC
The Nature Conservancy of BC
The Nature Trust of BC
Tlell Watershed Society
Traditional Bowhunters of BC
Trail Wildlife Association
Trepanier Creek Linear Park Society
Uplands Birds Society
Valley Fish & Game Club
Vanderhoof Fish & Game Club
West Arm Outdoors Club
Wild Bird Trust of British Columbia

Past Board Members

Since 1981, the Habitat Conservation Trust Fund has been guided by the sound advice and good judgement of volunteer Board members. The dedication and expertise of these committed conservationists ensures that HCTF project investments truly "make a difference" for fish and wildlife in British Columbia. Thank You!

Nancy Anderson
Art Benson
Don Bourassa
Maurice Bradley
Dr. Bert Brink
Lloyd Brooks
Barbara Brown
Tom Christy
Irma Cue
Evelyn Fahselt
Judge Leo Gansner
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Thanks again to all our contributors!

The anglers, hunters,
guide-outfitters and trappers
of British Columbia

Notes

HABITAT CONSERVATION TRUST FUND

1981–2006 25TH ANNIVERSARY

Achieving Conservation Results Together

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