

Robert Bateman Gettoknow Program

We are delighted to be a sponsor of the Robert Bateman Gettoknow program to help young Canadians connect with other species which live in their communities. Bateman believes that in order to raise a generation who will care for the planet, we must begin by teaching them the ABCs of environmental literacy. The problem, as he describes it, is that we live in a society where youth recognize 1,200 corporate logos and fewer than 12 species of wildlife in their communities. Bateman wants to turn these numbers

around. He believes that introducing students to wildlife is an important first step towards increasing student empathy for their well-being and helping them understand why wildlife habitat must be protected. This school-based program will be piloted in Vancouver area schools during the 2005/2006 school year. For more information and to find out how to order a Robert Bateman calendar featuring artwork by children from across Canada, visit the Gettoknow website at www.gettoknow.ca/products_calendar.htm



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Jason Northcott joined The Nature Trust as the Conservation Specialist in July. Originally from Newfoundland, he has a Bachelor of Science in forestry and environmental management from the University of New Brunswick and a Master of Science in fishery and wildlife sciences from New Mexico State University. His dream has been to live and work in BC since he was a tree planter here many years ago. We are delighted to welcome him.

Eco Tours

The Nature Trust sponsors Eco Tours with local naturalists in order to view wildlife and conservation areas. Check our website at www.naturetrust.bc.ca in early 2006 for bird watching tours connected with the Brant Festival on Vancouver Island and other tours.



Canada's youngest Major General in 1944.

Bert Hoffmeister War Hero, Forestry Executive and Conservationist Honoured

The Nature Trust is honouring the founding chair, Bert Hoffmeister, who led the organization for 20 years and left an amazing legacy of conservation properties as well as a cooperative approach to acquiring land through partnerships. A sign will be installed at Scout Island in Williams Lake this fall and another is in the planning stage for Boundary Bay. If you would like to help with this lasting tribute, please send your donation designated to the Bert Hoffmeister Recognition Signs.



MacMillan Bloedel CEO.



The Nature Trust of BC Chair.



The Nature Trust
of British Columbia

A newsletter on how The Nature Trust works to keep B.C. beautiful

Natural Legacy

Issue #23 Fall 2005

Conserving One of Canada's Most Endangered Ecosystems



Antelope-brush habitat is one of Canada's top four endangered ecosystems.

"I am really pleased that The Nature Trust has been able to make this purchase," said Dr. Geoff Scudder, one of BC's leading scientists and director of The Nature Trust. "In my research in the South Okanagan, I collected two species in particular which are of great interest and make

this property worthy of protection—Preble's shrew and the seed bug *Cordillonotus stellatus* Scudder."

In June The Nature Trust secured 67 hectares (166 acres) of one of Canada's most endangered ecosystems located just south of Vaseux Lake between Oliver and Okanagan Falls with

funding from FortisBC, Environment Canada, the Habitat Conservation Trust Fund, BC Trust for Public Lands and a private donor. This is Phase II of the Antelope brush Conservation Area. Phase I was acquired in December 2004 and encompassed 40 hectares (100 acres).

We are fundraising for Phase III which consists of 55.5 hectares (137 acres). In addition to the rare Antelope-brush ecosystem, Phase III features a riparian section along the Okanagan River. This river is the seventh most endangered river in the province according to the BC Outdoor Recreation Council (2005). One of the remaining Columbia River Sockeye Salmon spawning areas within the Okanagan River watershed is located just south of the property. This Nature Trust project will permit habitat restoration activities to target Columbia River Sockeye, Yellow-breasted Chat and Western Screech Owl. To make a donation for Phase III, please contact us.

A Day in the Life of a Warden

By Doug Sandilands
Robson Bight Warden Program

As I lie in my tent with my toque pulled over my eyes, waiting for the alarm to go off, I'm jerked awake by the sound of killer whale blows resonating through the fog. I leave the warmth of my tent and notice killer whale dorsal fins rising off our campsite on West Cracroft Island—directly across Johnstone Strait from Robson Bight Ecological Reserve. Robson Bight is a deep notch out of the eastern side of northern Vancouver Island between Campbell River and Port Hardy. The Bight serves as a resting spot for migrating salmon when strong

ebb tides try to push them into Queen Charlotte Strait and away from the streams and rivers to which they are drawn. Killer whales and fishermen have learned their hiding spot and find the salmon easy prey. Over the last 10,000 years, killer whales have also come to know this shoreline as a place to rub on smooth pebble beaches. The Warden Program—that has brought me here over the last five years—began in 1987 in order to educate boaters about the ecological reserve and the whale watching guidelines.

As I enter the field camp headquarters, a keen new volunteer has just put on the

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\$150,000
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Killer whale at Robson Bight, page 6



Focus on the Aquatic Ecosystem of the Lower Fraser River

The HSBC Fraser River Sturgeon Education Program focuses on the aquatic ecosystem of the lower Fraser River and its marine estuary. This biologically rich environment exists literally in the backyard of Lower Mainland residents. The program will target elementary school children and First Nations communities in Vancouver, Burnaby, New Westminster, Coquitlam, Maple Ridge-Pitt Meadows, Mission, Fraser-Cascade (Hope), Chilliwack, Abbotsford, Langley, Surrey, and Delta. The sturgeon will be used to teach environmental responsibility and ecological conservation. This species, that has outlived the dinosaur and survived two ice ages, is the largest freshwater fish in North America. White sturgeon are at the top of the Fraser River food web, and are one of the few year-round resident species of fish in the lower Fraser River.

The key messages of the program will focus on an understanding of this shared "backyard" environment, the biological

richness, the human threats to its survival, and the pathways toward environmental sustainability. The strategies include developing lesson plans, printed materials, educational presentations, and web-based communications. These materials will be linked to Social Studies and Science in Grades 3 to 6. The lessons and related presentations will be ready for use in pilot classrooms between September and December 2005. This program is sponsored by HSBC Bank of Canada, The Nature Trust and the Fraser River Sturgeon Conservation Society.

Question from sample lesson
 True or False:
 White sturgeon have 2 rows of teeth.
 False. The white sturgeon have no teeth at all. Their mouth extends out like a vacuum cleaner hose, and they siphon food from the bottom of the river.



This juvenile white sturgeon is likely two years old (Photo: Fraser River Sturgeon Conservation Society).



The old-growth forest is home to many wildlife species including elk and black bear.

\$150,000 to Go MacMillan Provincial Park Expansion

We want to express our appreciation to all the donors who have supported the expansion of MacMillan Provincial Park on Vancouver Island. When we had the opportunity to almost double the size of this world renowned park with its ancient Douglas fir trees, our financial commitment was \$500,000. With the generous assistance of many supporters, including family members of Mr. H.R. MacMillan, we have raised \$350,000. If you would like to help us reach our goal, please contact us.

The Nature Trust has played a key role in both the establishment and contribution of key infill private properties to 11 BC Provincial Parks. For more details, visit our re-designed website at www.naturetrust.bc.ca/articles.php

THE NATURE TRUST sponsored events

Fire Restoration



Fire restoration activities have been ongoing since the Vaseux Lake wildfire in the South Okanagan in 2003. Our appreciation to Weyerhaeuser for providing \$40,000 to assist with invasive weed control, planting native species and monitoring.

Youth Climate Conference



The Honourable Stephane Dion and Alysia Garmulewicz, Director of the Youth Climate Change Conference in Victoria.

World Rivers Day



World Rivers Day was celebrated on September 25 on the Englishman River on Vancouver Island. We are delighted that Dave Lindsay of TimberWest provided a covenant on 8 hectares (20 acres) of riverside land to Tim Clermont of The Nature Trust.

21st Commodores' Cup Junior Race



The Commodores' Cup Junior Race, the largest Youth Training Regatta in Canada, was held in September. Top: Patrick Oswald of The Nature Trust with Commodore A.B. Donaldson. Right: The Commodore with Alex Ninow, winner of the Laser Radial Class (Photo: Jerome Kashetsky).



Robson Bight: from page 1

coffee and turned on the hydrophone. It sounds like G Clan calls and is likely the I15 matriline that appeared in Johnstone Strait yesterday. Staff and volunteers scramble to make sandwiches and grab apples for their day at the monitoring station—a 45-minute hike over logs and up several steep hills.

Carrying the day's equipment, I stagger through the intertidal boulder field, slippery with the kelp of low tide on my way to our rigid hulled Zodiac. I head out with Sara, a student from England who has just finished a Master's thesis on hawksbill turtles. We motor slowly towards the ecological reserve, scanning for whales and the vessels that follow them.

We spot a group of kayakers near the western boundary of the reserve. Vessels, including kayaks, are asked to remain outside of the reserve to ensure that the whales are not disturbed while they forage for salmon and rub on the beaches. Outside the reserve the whales are likely to encounter whale watching boats, kayaks, cruise ships, ferries, tug boats, commercial and sport fishermen, sailboats, and researchers. Much as humans rely on their sight, killer whales rely on sound to communicate, navigate and locate their food. Like bats, killer whales send out "echolocation clicks", small pulses of sound that are reflected

The Robson Bight (Michael Bigg) Ecological Reserve was established in 1982, as a result of strong local lobbying efforts. BC Parks established the reserve to provide a sanctuary for killer whales. The Nature Trust acquired 38.06 hectares (94 acres) at the mouth of the Tsitika River in the middle of the reserve which facilitated the expansion of the ecological reserve from a marine reserve to include adjacent land that has now been expanded to over 500 hectares (1,235 acres).

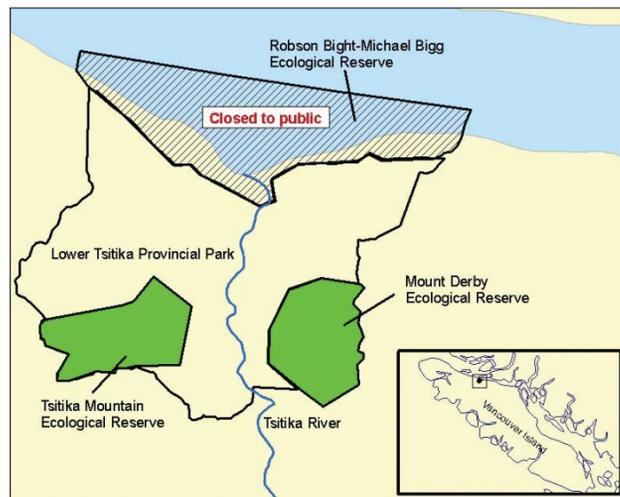
by objects such as fish, boats and the seafloor. However, research is showing that noise from propellers and engines impedes the effectiveness of echolocation.

According to "Eagle Eye", the kayakers have entered the ecological reserve. The monitoring site known as Eagle Eye is where our volunteers spend most of their time, helping to locate whales and the boats that watch them. Using a high power spotting scope located 50 metres above sea level on West Cracroft Island, Eagle Eye monitors an area that includes the entire Ecological Reserve and several kilometres of shoreline on either side, an impossible task for a warden standing on a boat.

We manoeuvre alongside the three kayaks. These paddlers are from California and this is the first time they have seen killer whales. The shop where they rented their kayaks



The whale watching guidelines state that vessels should keep clear of the path of whales (see www.pac.dfo-mpo.gc.ca/species/marinemammals/view_e.htm).



Robson Bight Ecological Reserve and Adjacent Protected Areas

mentioned the ecological reserve and the whale watching guidelines. However, as this is the first time they have used a nautical chart they were not sure where the reserve started. They also claimed confusion about the guidelines. The kayakers are directly in the path of the whales and they all have their cameras out. They will get good pictures but, as these whales will encounter vessels several times an hour, there is mounting evidence that this seemingly benign encounter may disrupt the activities of the whales.

We drop our hydrophone overboard and let the kayakers listen to the vocalizations that the I15s are making. As part of G Clan, the I15s make sounds that have been likened to donkeys. We hear several "eee-ahhhs" and see a whale surface in the distance.

We contact several more vessels entering the reserve. None have the latest nautical charts showing the reserve boundaries.

After a few trips in and out of the reserve to rub on the beaches and feed near Blackney Pass, the killer whales continue into Blackfish Sound and activity dies down in Johnstone Strait. Our sister program, Straitwatch, will monitor vessel activity around the whales as they head away from the reserve. It's now six thirty—time to start thinking about dinner and paper work. The evening light dims as we motor back to camp and see blows off to the east. The hydrophone tells us it's A Clan whales returning from a trip towards Kelsey Bay and Campbell River. They will likely meet up with the I15s tomorrow. The weather forecast is for more morning fog and gale force northwest winds for the afternoon. Can't wait.

There are approximately 215 northern resident killer whales. Resident killer whales feed almost entirely on salmon. The whales spend their lives with their mother and her other offspring in groups of three to fifteen animals known as matriline.

There are three Clans in the northern residents: A, G, and R. Clans are groups of matriline that share at least some calls with other matriline of their Clan. To avoid inbreeding, northern residents tend to mate with members of other clans.

The Joy of Getting Your Hands Dirty

Much of the on-the-ground habitat restoration work on Nature Trust properties is tackled by Conservation Youth Crews from May to August with some extending into the fall season. This year we had the largest number of young people

participating in the most regions: Vancouver Island, South Okanagan, East Kootenay and partnering with Ducks Unlimited Canada in the Peace River and Chilcotin Plateau.

Quotes from Conservation Youth Crew Members



Nanaimo crew member Ben Atwater

"This job has been helpful in learning how to identify different plant and animal species as well as how to test the oxygen gas concentrations in water and even some basic bioengineering."



Invermere crew supervisor Marco Marrello

"On each of the conservation properties we are trying to install public information signs as well as wildlife viewing areas for everyone to enjoy from young children to grandparents."



Williams Lake crew member Allison Mumford

"My parents own a ranch in Alexis Creek along the Chilcotin River and I had never thought it was an issue with the horses and cows drinking out of the river. But I have now realized there are stewardship practices we can change to maintain the habitat along the river. They will benefit the cows as well as the wildlife and insects that live there."



South Okanagan crew member Nick Burdock undertaking photo monitoring in the White Lake Basin

Partners on Our Conservation Youth Crews

BC Conservation Foundation
 BC Ministry of Environment
 BC Ministry of Transportation
 BC Trust for Public Lands
 Canadian Wildlife Service
 Columbia Basin Fish & Wildlife Compensation Program
 Columbia Basin Trust

Ducks Unlimited Canada
 Habitat Conservation Trust Fund
 Human Resources and Skills Development Canada
 Shell Environmental Fund
 TD Friends of the Environment Foundation
 Weyerhaeuser Jobs for Youth Program



Giving Nature A Caring Hand

Looking out of my office window I am struck by the beauty of the fall leaves in a nearby park. In only a few short months 2005 will conclude and so it seems an appropriate time to reflect on our organization's position after 34 years serving the conservation interests of British Columbia.

When The Nature Trust was founded in 1971, the focus was on acquiring ecologically sensitive land at the greatest risk of being lost. Since that time the focus has changed to incorporate the acquisition as well as the management of these critical habitats. We believe that environmental stewardship through land management is the true measure of our success as stewards of BC's natural capital. Today, land management represents 70% of our annual operating budget.

Environmental stewardship encompasses an incredible variety of activities large and small, highly technical and highly physical. It includes:

- the restoration of riparian habitat along the Englishman River on Vancouver Island by youth crews and volunteers to ensure that invasive weeds are removed and native plants have the chance to grow.
- sponsoring community workshops on invasive plants, environmental field trips and youth activities such as the Commodores' Cup and Youth Climate Change Conference



Molly Schneider: future Commodores' Cup participant.



A fencing crew in the East Kootenay.

- fish counts on the Englishman River carried out by partners including the Pacific Salmon Foundation, Mid Vancouver Island Habitat Enhancement Society, and Fisheries and Oceans Canada to assess how restoration work has affected fish populations.
- monitoring post-wildfire restoration activities in the Vaseux Lake area of the South Okanagan to assess how different strategies for seeding and weeding affect plant and animal communities.
- bird counts in the Okanagan to monitor how keeping livestock out of water sources has impacted riparian-dependent bird species.
- installing information signs that identify how people can enjoy a wildlife viewing experience without damaging fragile habitat.
- maintenance on properties such as invasive weed control, removing garbage and repairing fences.

A basic premise of The Nature Trust's acquisition and management of sensitive habitats has been that, over time, these sites will receive the management and maintenance necessary to ensure that the long-term ecological and habitat values for which they were acquired is achieved. The complexities and ramifications of good stewardship planning and practice reflect on us as we move forward. This is what we will be measured by down the road. To say the least, this is a challenge in a time of reduced public funding, ever-growing competition for recreational access, and reductions in provincial wildlife/park staff.

Giving nature a caring hand costs money. Support for operational needs is often the most difficult to raise, yet it is a vital and rewarding part of our conservation efforts. We are very appreciative of the support from our wonderful donors, and we need to increase our fundraising efforts. Please let other interested people know about our work and opportunities to help by passing along this newsletter or referring them to our website at www.naturetrust.bc.ca. Together we can ensure the many benefits of nature are available to future generations.

Conservation and Restoration of the Cowichan Estuary

By Tim J. Clermont
Vancouver Island Wetlands Manager

The Cowichan estuary near Duncan on Vancouver Island is one of the top 10 critical wetlands on the coast of British Columbia. This is a spectacular place for bird watching. Over 200 bird species live here throughout the year and thousands of waterfowl can be found here each winter. This estuary also provides important rearing habitat for all seven Pacific salmon species.

Beginning in the late 1800s, over 40% of the intertidal estuaries of Cowichan Bay, including the Cowichan River estuary were diked to create arable land for hay and industrial uses such as log storage and shipping. In 1925 an extension of the Canadian National Railway was built on the Cowichan River estuary to connect inland logging operations with coastal access. Additional diking occurred from 1962 to 1984 to create more agriculture lands and the Doman Sawmill was developed.

In 1985, The Nature Trust began acquiring key parcels of Cowichan estuary lands. In 1986 while we were negotiating for the purchase of another parcel we were surprised to learn we were competing with Ducks Unlimited Canada. The Nature Trust and Ducks Unlimited realized a partnership would be more effective and in 1987 the Pacific Estuary Conservation Program (PECP) was formed with the Habitat Conservation Trust Fund, BC Ministry of Environment, Fisheries and Oceans Canada, Canadian Wildlife Service, and Nature Conservancy of Canada (The Land Conservancy joined later).



Cowichan Estuary before habitat restoration



Cowichan Estuary after habitat restoration showing lush riparian growth.

The PECP working with industry was a key to success. The Canadian National Railway intertidal wetlands (Lot 160) were transferred to the Crown for fish and wildlife protection as long as the existing log storage leases and lumber industry were allowed to continue operations (approximately 75% reduction in log storage leases had occurred from the peak). From 1985 to 1990 PECP worked with industry and the local community to secure 9 parcels totalling 308 hectares (770 acres) of the Cowichan estuary.

Conservation efforts spanning two decades have made a huge difference in restoring the environmental health and productivity of this important Vancouver Island estuary. Today virtually no logs can be found within storage leases on the intertidal mudflats. Stewards led by the Cowichan Valley Land Trust are now replanting eel grass beds. The Nature Trust Conservation Youth Crews have been busy controlling invasive plants along the dikes and within the 100-year-old Maple Grove which has become a landmark for those travelling on Cowichan Bay Road. Recent bird use studies conducted by The Nature Trust have recorded higher waterfowl densities for some species within restored Cowichan estuarine habitats than all other BC estuaries including the number one ranked Fraser delta.

The Cowichan River estuary on Vancouver Island is a wonderful conservation success story. It demonstrates what can be achieved when individuals and organizations have a common vision for habitat restoration.



Have you ever seen a group of long legged birds scooting along the edge of the water with their heads down searching for their next meal? If so, you've probably been looking at Western Sandpipers—or one of their close cousins. In migration, the Western Sandpiper (*Calidris mauri*) travels in huge flocks, particularly along the Pacific Coast. In breeding season, the Western Sandpiper can be found on coastal tundras feeding on insect larvae. In the winter it can be found on mudflats, beaches and lakes, ponds and flooded fields dining on crustaceans, marine worms, and other aquatic invertebrates. (Photo: Mike Yip)