



Raincoast is a team

of conservationists and scientists empowered by our research to protect the lands, waters and wildlife of the Great Bear Rainforest. Our on-the-ground presence has given us a deeprooted understanding of this vast coastline.

Our vision

for the Great Bear Rainforest is to protect the habitats of umbrella species. We believe this approach will help ensure the survival of all species and ecological processes that exist at different scales.

Investigate. Inform. Inspire.

We investigate to understand coastal species and processes.

We inform by bringing science to decision makers and communities.

We inspire by building a vision of stewardship for this fragile coastline.

Raincoast depends 100% on donations for our projects.

We are very grateful to all the generous donors who supported our work this past year. Thank you!



hese are challenging times for our planet. It seems like each day brings news of another potential collapse, spanning the range from ecosystems to financial systems. While the current economic crisis unfolds around the globe, we are clearly seeing some disturbing downturns in British Columbia's environment. Our climate is changing, our wild salmon are declining, our southern resident killer whale population is struggling, and our ocean is becoming increasingly unpredictable and unproductive.

In recent testimony, Alan Greenspan, controversial former Chairman of the United States Federal Reserve, admitted to profound failures in the management of the American economy. Will we soon see our federal and provincial authorities making a similar admission with regard to the management of British Columbia's wild salmon?

In the public arena, ecosystems are fought over as if their fate is somehow debatable. The British Columbian coast is no exception. The economy versus the environment has become an exhausted and self-defeating argument that only serves to obfuscate what's actually at stake.

The real question is why our instinctual and scientific awareness is being obscured by an economic equation that is clearly falling short of delivering on its many promises. The onset of enormous challenges like climate change increase our awareness that decades of "commodifying" the planet's resources is failing on a fundamental level.

At Raincoast, our team of scientists and conservationists are active in building a wealth of knowledge on coastal ecosystems and their management. It is our goal to fill in the significant knowledge gaps that still exist. After a decade of work, we continue to collaborate with scientists at academic and government institutions such as Duke University, University of California at Los Angeles, Simon Fraser University, University of Victoria, Uppsala University, and the Institute of Ocean Sciences.

Raincoast is a not-for-profit charitable organization that relies on the financial support of those who share our passion and vision. In order to diversify our funding it is important that we attract new investors to our work. As such, we are pleased to welcome Maple Leaf Adventures as our inaugural sponsor of *Tracking Raincoast*.

As we look to the future, we must also look to you, the individuals who provide us with our core support. Knowledge is power; action empowers. Please consider making a donation to Raincoast today.

For the coast,

JANE WOODLAND

Board Chair, Raincoast Conservation Foundation

Marine Conservation

Another successful field season

e did it again! Our wonderful and intrepid field crew of the *Achiever* finished off their sixth field season, braving wind and waves in search of marine mammals and birds. In total we have traversed more than 14,000 km and recorded 2,300 sightings of marine mammals and 19,000 sightings of marine birds. All this was accomplished in spite of some of the harshest conditions we have had yet. The weather in August was similar to what we would normally expect in winter. Despite this, there were many highlights, including a surprising sighting of a fin whale in Grenville Channel in the Inside Passage. We can only guess what brought this gentle giant to inshore waters.

To help identify important areas for marine mammals and birds in the central and north coasts, we are engaged in a collaborative project with colleagues at the Marine Geospatial Lab at Duke University. We are using simulation models that combine environmental and bathymetric data with our sightings to predict areas of abundance. We also share our data with the BC Cetacean Sightings Network and contribute to a large mapping project that is archiving marine mammal, bird, and sea turtle sightings around the world (the Ocean Biogeographic Information System Spatial Ecological

Analysis of Megavertebrate Populations).

supports a full day of research on Achiever!

Plankton tow at sunset on the Achiever.



Pipelines and tankers

n a more ominous note, after a two-year lull, Enbridge has revived their plans to build a dual oil and condensate pipeline joining the Alberta Tar Sands with a marine terminal in Kitimat. Condensate tankers and oil tankers similar to the Exxon Valdez would ply British Columbia's rocky northern coastline on almost a daily basis, entering Douglas Channel within eyesight of where the 122-metre BC Ferry Queen of the North struck Gil Island and sank in 2006. Consultations with First Nations communities along the route have already begun. The proposed pipeline would ship more than 500,000 barrels of crude oil per day, and, twice a week, 350-metre long super tankers would pass by the very spot where the Queen of the North sank as they carry crude to markets in California and Asia. The threat of a disastrous Exxon Valdez-like spill motivates us to ensure that this project undergoes rigorous scrutiny. It threatens coastal mammal and bird populations, as well as the food supply and livelihoods of First Nations and other stakeholders.

In response to the Enbridge proposal, Raincoast began a baseline monitoring project in August 2008 throughout the Campania Island Archipelago in partnership with the Gitga'at First Nation (Hartley Bay, BC) and the Headwaters Initiative (Terrace, BC). The three-person field crew consisted of a Raincoast biologist and two field

Elliot Reece of the Gitga'at Nation sets a fry trap as part of the Campania Island Archipelago Monitoring Project.

technicians from Hartley Bay. The goal was to inventory and monitor key components of the coastal ecosystem that would be effected by chronic and catastrophic oil spills. In 20 days of field work spread out over more than 3,000 km², the monitoring crew inspected 23 unnamed coastal streams with previously undocumented salmon presence, finding salmon in eight of them; conducted six beached bird surveys over 10 km of coastline; collected mussels for baseline hydrocarbon toxicology data from five strategic locations throughout the study area; conducted three intertidal diversity surveys; recorded 34 cetacean sightings; and made extensive observations on the use of coastal habitats by marine and terrestrial vertebrates, including birds, seals, sea lions, bears, wolves, and river otters. Raincoast, the Gitga'at Nation, and the Headwaters Initiative have begun preliminary planning for an expanded monitoring program in 2009 and 2010.

Critical habitat

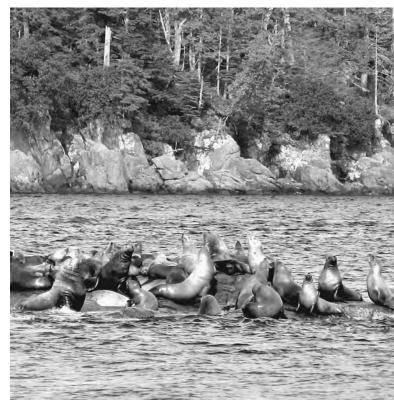
fter almost two years of delays, the finalized *Resident Killer Whale Recovery Strategy* was approved by the federal Minister of Fisheries and Oceans in March 2008. This science-based document identified two areas of known critical habitat for killer whales, and suggested other important areas that may also be critical habitat. Senior bureaucrats delayed the *Strategy's* release to remove any references to critical habitat, possibly because once critical habitat is identified, the government is required by law to protect it. The team of experts who wrote the

initial draft vehemently and publicly opposed this, and it was eventually returned to the document. In September 2008, the Minister released a statement, without consulting the team, stating that critical habitat is protected by existing laws, and no further actions are necessary. With killer whales struggling due to a lack of returning salmon, the adequacy of this assessment is called into question. In October 2008 Raincoast joined with other non-governmental organizations in a lawsuit against this decision.



Wind farm impacts

aincoast is very supportive of technologies that reduce society's reliance on hydrocarbons, but we also have serious concerns about a proposed mega-project to build one of the world's largest wind farms in the shallow waters of the northwestern portion of Hecate Strait. The NaiKun wind farm proposes to generate 1750 megawatts from 350 turbines spread over 30-60 km². Unfortunately, this wind farm is directly within the Pacific Flyway, through which more than 20 million birds migrate. The area is also home to a successful crab fishery and an important winter foraging area for a number of seabirds. In addition to our concerns about disturbance and collision, the underwater noise associated with the construction phase of the wind farm also poses potential risks to marine mammals, fish, and invertebrates. Raincoast will continue to assess this proposal and communicate accordingly with the public and government agencies.





Marine bird conservation soars

arine birds are abundant, diverse, and highly mobile predators and scavengers of the seas. For these and other reasons, marine birds are often used as indicators of ecosystem health and ecosystem change. Our intricate coast supports a stunning and globally unique diversity of marine birds, which includes seabirds, marine waterfowl, shorebirds, and marine raptors. Millions of marine and other coastal birds migrate offshore and along the coast, while millions more breed here. Still others, including albatrosses, shearwaters and skuas, are long distance migrants that breed elsewhere in the world and feed in our coastal waters. Yet, despite the wealth of avian diversity on our coast and their susceptibility to a long list of anthropogenic threats that include oil pollution, climate change, conflict with fisheries and, potentially, wind turbines, marine birds at sea are very poorly understood.

2008 marks the completion of four years of hard work to fill basic knowledge gaps regarding seasonal and interannual marine bird distributions, densities and richness in the waters adjacent to the Great Bear Rainforest. By repeatedly surveying the marine waters from Dixon Entrance to Queen Charlotte Strait and the adjacent mainland inlets, we have documented more than 70 species and amassed 19,000 sightings of approximately 100,000 individual marine and other coastal birds. In seas that ranged from smooth to mountainous with blowing spray, our sightings include the more abundant Cassin's Auklet, Tufted Puffin, and White-winged Scoter to the much less common Horned Puffin and Laysan Albatross.

Of the many birds observed, we're especially thrilled to report the incredibly rare sighting of a lone, Shorttailed Albatross in the waters southeast of Haida Gwaii in 2008. Breeding on islands in the Eastern Pacific, Short-tailed Albatross spend the great majority of their lives wandering the seas. This species, once numbering in the millions, was decimated by the demand for feathers and it was at one time thought to be extinct. Today, the world's population of Short-tailed Albatross is estimated at more than 2,500 individuals and is considered threatened in Canada. Our sighting is one of fewer than 40 reported in British Columbia waters since 1996, although it is likely that many more remain undetected when they visit our coast. This encounter highlights the urgent need for long-term monitoring of marine birds, particularly those of conservation concern. It also brings attention to the poor understanding of marine birds at sea and the habitats and resources they rely on.

For 2009, we have set our sights on the further analysis, communication, and sharing of our marine bird distribution and density information. In particular, we seek to generate and share marine bird density estimates, identify areas important for marine birds, and examine the potential for conflict with increasing industrial activity, such as tanker traffic and wind turbines. Our findings are intended to raise awareness about marine birds and also bolster marine bird research and conservation activities by Raincoast, our project collaborators, and a number of interested stakeholders.

Wild Salmon

Not enough salmon, not enough effort

n December, the *Canadian Journal of Fisheries and Aquatic Sciences* published Raincoast's findings on the status of salmon stocks throughout BC's central and north coasts. This article examines the federal Department of Fisheries and Ocean's (DFO) 215 indicator streams, which are used to represent salmon returns in this region.

Our findings show an alarming number of salmon streams fail to meet their targeted escapement. Escapement is the number of salmon that escape fishery nets and reach the spawning grounds. At best, 50% of salmon runs met their target escapements between 1950 and 2000. Despite slight increases in pink and coho stocks during 2000–2005, spawning chum, sockeye, and chinook were depressed in most streams by 67%, 70%, and 85% respectively.

We also recorded a decline in the number of streams

monitored by DFO creek walkers since 1950 (largely due to budget cuts). The 215 monitored streams had declined to just 137 by 2005, representing only 5% of the more than 2,500 known salmon streams on the central and north coasts. We also found that as salmon became further depressed on a given stream, monitoring eventually ended. Thus, only relatively healthy salmon runs are now monitored, presenting a biased view of overall salmon health on the coast.

Without adequate information on salmon returns, DFO does not have the necessary data to assess trends in abundance or conserve salmon populations under heavy fisheries pressure. A constantly eroded monitoring effort, and one biased toward larger, healthier runs, does not meet the criteria of wise fishery management or salmon conservation in British Columbia.





Between the river and the sea: too many nets

The gauntlet of obstacles that wild salmon face between the ocean and their birth rivers has always targeted adult salmon returning to spawn, as they navigate the lethal nets of the Pacific fishing fleet. Today, salmon must also navigate lethal nets at the start of their journey as they pass the net-pens of fish farms on their way to sea.

During the coast-wide migration of juvenile salmon from rivers to ocean in the spring of 2008, several important events occurred: the journal *Science* published an article on declines of pink salmon in British Columbia due to salmon farms, the provincial government announced a salmon farm moratorium along British Columbia's north coast, and, despite the moratorium, two new farms began operating near the entrance of the revered Mussel Inlet on British Columbia's central coast.

Raincoast began 2008 by completing a two-year study investigating natural sea lice levels on young salmon in the farm-free Bella Bella region. Here, we found that lice infect roughly 4% of the juvenile pink and chum salmon.

During this time, we also investigated lice levels in the Klemtu region north of Bella Bella (where six farms now operate), and found lice levels five times higher. We further completed our two-year study among the Discovery Islands (where more than 20 farms operate), which showed lice levels more than eight times higher than the ambient levels of Bella Bella.

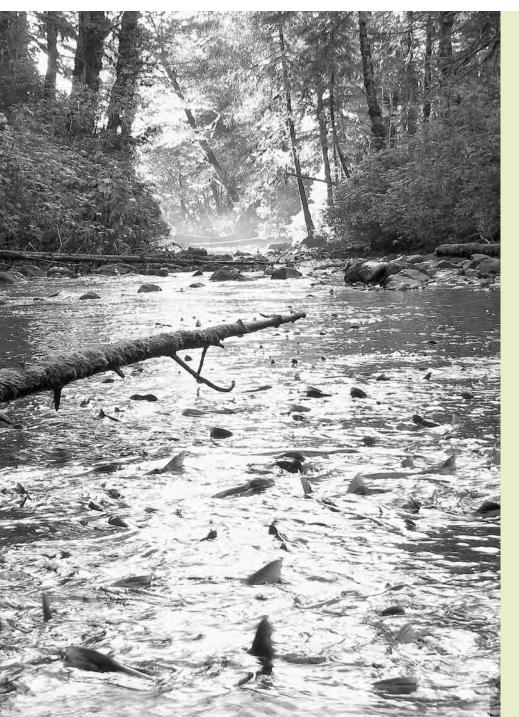
These results raise several concerns. Despite the large weight of evidence linking salmon farms with lethal sea lice infestations in wild salmon, our governments – both federal and provincial – refuse to listen. The two new farms situated along either side of the migration route for juvenile salmon leaving Mussel River, an important grizzly bear valley, are ecologically untenable. And perhaps most alarming: it is juvenile sockeye among the Discovery Islands that are the most heavily infected with sea lice. Raincoast is currently using genetic tools to investigate whether these juveniles are of Fraser River origin, and will continue our research throughout 2009.

Digging into the past

The importance of salmon returns to wildlife and young salmon fry is well documented, but can we also learn about the role of salmon nutrients from the sediment record in sockeye lakes?

As part of Raincoast's investigation into the role of salmon nutrients in freshwater habitat, we hosted a workshop of leading scientists and researchers that use sediment records from sockeye lakes to understand the importance of past salmon abundance to future generations of

salmon fry. This application of paleolimnology is a fascinating tool to aid our understanding of past factors driving salmon abundance. Raincoast's sediment cores from the Rivers Inlet area contain records of watershed changes, and fluctuations and declines in salmon abundance that have occurred over the last 250 years. A decline in the quality of lake habitat may be one of the factors contributing to the recent sockeye collapse in this region. Changing climate conditions may also play a prominent role.



Salmon in a changing climate

n 2008, Raincoast began collaborating with the Pacific Climate Impacts Consortium at the University of Victoria to examine the trends, forecasts, and potential changes to salmon stream habitats on the British Columbia coast. We are examining historical and projected temperature, precipitation, stream flow, and snow pack scenarios so that we can further consider how Pacific salmon might respond to these rapidly changing conditions. With many salmon populations already responding negatively to changing climatic conditions, fisheries management and other activities that further impact salmon or their habitats warrant much greater scrutiny, and precautionary considerations.

Small salmon streams are critically important to wildlife. These streams are also particularly vulnerable to impacts from fishery exploitation and climate change.

Chum, pink, and coho relationships: I think I need you

n collaboration with Simon Fraser University, Raincoast is examining coastal streams to understand the ecological relationship between juvenile coho and spawning chum and pink salmon. The eggs of chum and pink salmon, as well as carcasses, provide an annual pulse of marine-derived nutrients to nutrientlimited freshwater and riparian areas throughout British Columbia's coast. Specifically, the eggs and carcasses of the adults supply high-energy food directly to the young coho fry during the critical growing season. Preliminary observations suggest these juvenile coho populations benefit from the abundance of chum and pink spawners in stream environments. This stage of the project will be completed in 2009.





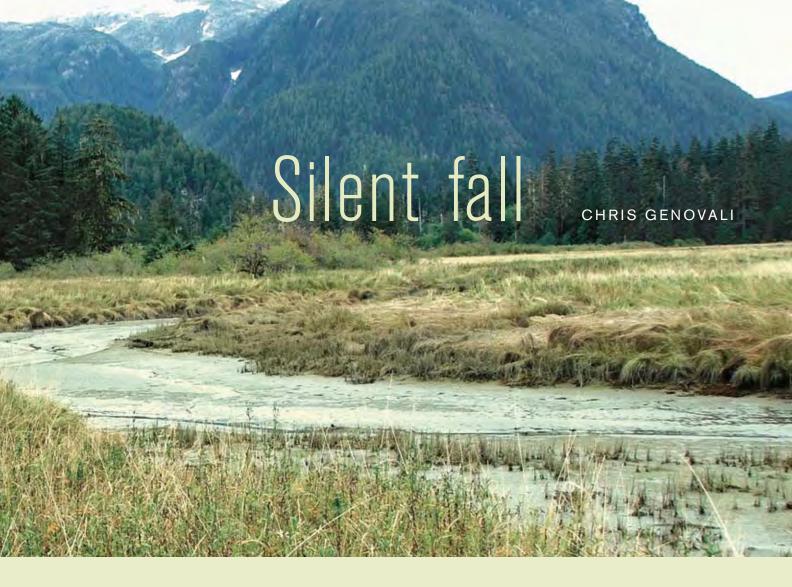
he silence along the river was almost deafening. No birds, bears, or wolves appeared along the banks. The reason soon became obvious: not a single salmon was to be seen in the glacial-fed water. Not a single salmon carcass lay on the ground – not in the estuary or the forest. There was no sign of predation and no sign of decomposition.

The usual sounds of fall in this British Columbia coastal rainforest valley were agonizingly muted. The thrashing of salmon swimming upstream, the splashing of grizzlies pouncing on fish in the shallows, the cacophony of multiple bird species scavenging the bears' leftovers, all were virtually nonexistent. And not a whiff of the fetid odour of dead and decaying salmon that I associate with

this time of year was evident. The unnatural quiet sent a chill up my spine.

Having spent the latter half of September on Raincoast's research vessel *Achiever*, visiting salmon-producing systems on a daily basis throughout the central coast, it is abundantly clear that the new protected areas in the Great Bear Rainforest aren't going to protect much if they are devoid of salmon. In fact, unless management of the fishery changes soon, as a local newspaper editorial has put it, "none of us will be eating salmon for a very long time to come." And that includes our unique coastal wolves, iconic grizzly bears, and majestic killer whales.

Something is amiss with salmon runs in numerous coastal watersheds, as evidenced by disturbingly



low pink and chum returns the last two years. These runs of pink and chum are vital to wildlife. Depending on whose perspective you seek out, it is either attributable to poor ocean survival as a result of climate change, over-exploitation by both commercial fishing fleets and the sports fishing industry, sea lice infestations from fish farms, degradation of habitat from industrial forestry, or some combination thereof.

The provincial government appears to have scant interest in protecting wild salmon as they allow their preferred constituents in the aquaculture, forest, and energy industries to engage in actions that directly endanger the species or degrade their marine and freshwater habitats. The federal government isn't much farther ahead, with fishing

policies that support over-exploitation, ignore species diversity, and promote fish farming. When conditions associated with climate change are added to these stresses, it is no wonder wild salmon face gloomy prospects of recovery in many areas of the province.

British Columbia's wild salmon deserve better given the ecological, economic, cultural, and spiritual underpinning they have provided this province. In the one hundred years that we have been "managing" the *Oncorhynchus* genus we have presided over the collapse of historic runs of sockeye, coho, chinook, chum, and even pink salmon. This, in turn, impacts cultures, communities, wildlife, and coastal ecosystems that have evolved to depend on the food and nutrients salmon provide.

Coastal Cougars

Building on our expertise with grizzly bears and wolves, Raincoast is excited to announce the expansion of our large carnivore work. Both beautiful and mysterious, cougars – known also as pumas and mountain lions – have continued against many odds to retain their foothold in the British Columbia landscape.

As a remnant of a once larger network of populations across the Americas, British Columbia's cougar population provides an important opportunity for global cougar conservation. At present, however, the provincial government lacks sufficient ecological data or a comprehensive management strategy for cougars. Indeed, many believe that current provincial management policies are inadequate to protect cougar populations in the long term, or to ensure the welfare of individuals that constitute the population. In addition, most British Columbians do not support trophy hunting of large carnivores.

In light of these issues, Raincoast will release a report and public brochure on British Columbia cougars in Spring 2009. Our forthcoming report incorporates contemporary scientific information, best management principles in conservation biology, and a modern ethical framework related to human-carnivore relationships.

Based on our review of cougar ecology, research, and management in British Columbia and elsewhere, our report will provide a comprehensive conservation assessment and framework for a science- and ethics-based conservation plan. We recommend that long-term conservation strategies for British Columbia cougars should include education and awareness efforts, habitat protection, and freedom from exploitation and persecution.

Our report will build a foundation for longer term and larger scale cougar research and advocacy efforts throughout their British Columbia distribution and on Vancouver Island in particular. Based on our analysis of knowledge gaps in British Columbia, we propose several urgent research priorities, including understanding the ecological, evolutionary, and ethical consequences of cougar hunting on individual welfare and population persistence. Our vision for co-existence in a hotspot for cougar-human conflict is founded on a moral framework that is informed by the best available scientific information. In support of cougar conservation and welfare, our philosophy is to seek understanding and common ground among the diverse interests concerned with the cougars of British Columbia.





In 2008, Raincoast used *Achiever* to engage in spring and fall monitoring of our 24,000 square kilometer guide-outfitting territory, keeping an eye out for illegal hunting and other activities that negatively impact grizzlies.

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hile some gains have been made toward ending commercial grizzly hunting on the central coast, grizzly bears in British Columbia are still at risk from a host of pressures; these include habitat loss from industrial logging, mining, energy development and urban sprawl, as well as human-induced mortality from trophy hunting, poaching, and lethal predator control. This year, Raincoast and the David Suzuki Foundation revealed that in 2007, the most recent year for which mortality data are available, a record 430 grizzlies were reported killed, most shot by trophy hunters. Undoubtedly, an additional unreported number of grizzlies were killed or wounded as a result of hunting and poaching. To make matters worse, the no-hunting zones (known as Grizzly Bear Management Areas) that were promised well over a decade ago when the province's Grizzly Bear Conservation Strategy was announced, have yet to be implemented. This lack of implementation is one of the reasons the European Union continues to ban the importation of grizzly hunt trophies into its member countries.

The provincial Ministry of the Environment currently claims there are 17,000 grizzly bears in British Columbia and uses its estimates to establish kill quotas for the grizzly hunt. Yet the government's grizzly bear population estimates have not undergone rigorous independent scrutiny, nor have they been subjected to the hallmarks of scientific process, such as peer-reviewed publication.

An emerging concern for coastal grizzlies is climate change, which has the potential to adversely affect salmon abundance – a critical food source for these bears. Raincoast is working with wildlife scientists Brian Horejsi, Paul Paquet and Barrie Gilbert to produce a report that examines the current and future impacts of rapid climate change on grizzly bear populations in British Columbia, particularly coastal populations. These experts are assessing the effects of climate change on such things as habitat, food sources, and migration. They will detail these cumulative impacts and make recommendations as to how grizzly bear management in British Columbia must evolve to assure their long term persistence.

2008 saw Raincoast continue to inform the public about the ongoing threats to British Columbia's grizzlies by generating extensive media coverage, including stories in *The Globe and Mail, The Wall Street Journal* and *The Vancouver Sun*, among many other outlets across North America. Raincoast also partnered with the United States conservation group, Big Wildlife, to organize a sign-on letter to British Columbia Premier Gordon Campbell urging the government to immediately ban the hunting of grizzly bears in the province. The list of signatories to the letter included esteemed biologists and nearly 70 conservation and animal welfare organizations representing approximately 15 million members.



In the gentle light of daybreak, rufous coat and shoreline algae become one. Nose to the ground, she ambles down the beach to survey what the low-tide buffet has to offer. The salmon have come and gone this year, so she must now roam more widely for a meal. Just short of the rocky headland, an exposed waterlogged branch yields a stomach full of giant mussels. This will "tide" her over until the next low water. She doesn't know it yet, but she will encounter the remains of a beached humpback whale tomorrow. Stricken by old age, he will donate his bounty to her and members of her family. Such a generous offering will sate these wild wolves for several months on their rugged outer island home. And when that's done, they will take a plunge. Braving the currents, they will paddle to a neighbouring island, stopping en route to dine at one of their favourite seal-hunting reefs.

his fanciful vignette in fact accurately describes what a good part of our nearly decade-long research has told us about wolves of the Great Bear Rainforest. Like none other, they are wolves of the sea. With more than 17,000 km of beaches framing the myriad of islands and inlet labyrinths, oceanfront living is the norm. Far from forming a boundary between land and sea, it is on these shores where a great mixing occurs. Molecules and energy swap. What was land becomes sea, and vice versa in ephemeral exchanges.

For years, we have monitored these exchanges with a chemical tracer in wolf hair that allows us to estimate what proportion of wolf diet comes from the ocean. In

2008, an astounding result surfaced: we discovered that up to 75% of their living can come from the sea. In a companion research paper that received global media coverage, we fished out one of the reasons why. Using the same technique, we showed that these terrestrial carnivores would actually forgo deer – their dietary mainstay – when salmon were abundant.

Another tracer links wolves to the sea. In 2008, our disease work reached a milestone of 1,354 faecal samples, 105 (8%) of which contained an important clue: *Diphyllobothrium* – a parasite likely derived from marine intermediaries/hosts. Even on the mainland, where wolves consume fewer marine resources than their outer island

Animal welfare goes wild

"Ethics in our Western world has hitherto been largely limited to the relations of man to man. But that is a limited ethics. We need a boundless ethics which will include the animals also.... the time is coming when people will be amazed that the human race existed so long before it recognized that thoughtless injury to life is incompatible with real ethics. Ethics is in its unqualified form extended responsibility to everything that has life."

-Albert Schweitzer, 1924

uman influences, inadvertent and intended, continue to threaten the survival of wildlife populations. Although rarely considered, it is an unassailable fact that habitat destruction, trophy hunting, and overexploitation of food resources also cause remarkable suffering of individuals through displacement, stress, starvation, and reduced security. Yet the notion that animal welfare applies to wildlife has escaped most welfarists and conservationists. Consequently, a well-accepted and applied ethical foundation for animal conservation that considers animal welfare is very much necessary.

Emerging from Raincoast's wolf project, and present throughout all our programs, is an awareness that the welfare of habitats and the populations they support are closely linked to the welfare of the individual animals that constitute those populations and occupy those habitats. We know that many individuals within disturbed wildlife populations endure suffering. Habitat destruction, for example, deprives species of

relatives, the presence of this relatively harmless malady attests to the confluence of earth and ocean.

If food and diseases flow freely across the boundary between land and sea, then oil can too. An oil spill in coastal waters – made probable if the current moratorium on oil transport is lifted – would devastate the marine prey upon which wolves and other terrestrial carnivores depend. Moreover, the marine diet that sustains wolves could serve as a direct pathway for oil-derived toxins. An oil spill would be catastrophic not only for marine life it would touch directly, but also for coastal wolves and their fragile connection to both land and seascape.

essential life requisites, likely causing pain, prolonged suffering, and eventually death. Although less obvious, this equates to the harm to animals caused by unregulated industrial farming. Both are inherently justified by the supposed benefits accrued to humans

Historically, concerns about animal welfare (and ensuing legislation) have only applied to animals under human care, such as farm, companion, or research animals. In our view, the extension to wild animals is conspicuously missing. At Raincoast, we work from the premise that the seemingly disparate world views of conservationists and animal welfarists are closely related.

This is why we practise non-invasive research. In part, it likewise motivated us to examine the ecology of wolf diseases, some of which cause agony among infected individuals. Indeed, this ethic also motivated us to succeed at one of the most quixotic conservation ambitions of this century; we purchased and maintain a hunting license, an action that extinguished commercial trophy hunting of carnivores over a massive portion of the Great Bear Rainforest.

At Raincoast, we actively encourage a wildlife welfare ethic among our staff and other conservationists. We believe that the suffering wildlife endures because of humans is our collective responsibility and presents a moral imperative for conservationists and welfarists to carefully consider and act upon.



Wet, but inspired, Raincoasters persevere in their collection of field samples and information on rainforest wolves.

Field Station

2008 was another outstanding year for the Raincoast Field Station. Providing critical on-the-ground support for our research crews and partners in conservation, our recently upgraded facility is a testament to the hard work of volunteers and the generosity of our donors.

Located in the heart of the Great Bear Rainforest near the coastal community of Waglisla (Bella Bella), the field station has proven to be an ideal base for our research operations. Bunks for eight, cooking facilities, and hot showers make it a comfortable place to return after long days of field work in the surrounding coastal wilderness in pursuit of our research goals. Storage space for gear and samples, offices complete with phone and internet, and a full-time coordinator to oversee safety and organization, all make it a safe and productive work environment. Our protected cove and the new dock make the field station a welcome haven for our research vessel, *Achiever*.

Here the stunning natural beauty and abundant wildlife help to remind us what's at stake. The remoteness and tranquility belie the fact that industry still poses a



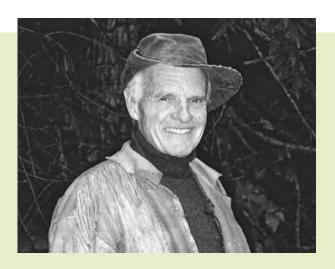
threat to the Great Bear Rainforest. The ability to live and work in this beautiful setting is a gift treasured by many. At the field station we work to ensure that the abundance of resources we experience daily will be here for generations to come.

We look forward to many more years of facilitating research and conservation in this unique, important, and fragile corner of our planet.

Friends of Raincoast

profiles individuals who deserve special recognition for their dedication and generosity in helping protect the Great Bear Rainforest.

BRISTOL FOSTER



BRISTOL FOSTER has served on the Raincoast Board of Directors for as long as the organization has existed. As our longest-serving board member, Bristol has been a stalwart and unwavering supporter of Raincoast's mission, as well as a steady hand in giving us guidance. He generously shares his invaluable wisdom and extensive science and conservation experience.

Marine Operations

Achiever: another year at full ahead

Achiever is a coastguard-certified research vessel that is owned and operated by Raincoast. 2008 was her second full year of operation since her major refit, and it was another demanding seven months for both the boat and crew. Achiever's log started in mid-March with a superb youth program in environmental leadership, sponsored by the World Wildlife Fund. We then conducted the spring monitoring trip in our guide-outfitting territory, where we keep a watchful eye out for illegal hunting and other activities that negatively impact grizzlies.

Following the bear monitoring, we shifted to the sixth season of marine surveys. Here we covered 1,000 km of track-line, identifying and recording marine animals and seabirds that inhabit the waters proposed for large-scale energy projects. We also did our second season of sea lion research, working with a consortium of four universities.

In the fall we moved back to the coastal rivers for the

wolf research expedition, and we finished the year undertaking an oceanographic journey with the Institute of Ocean



Sciences. We also conducted outreach projects with the Heiltsuk's Koeye Youth Camp, as well as a fall monitoring trip in our guide-outfitting territory. We brought *Achiever* down the coast in November for winter maintenance and equipment installation. This extremely capable vessel and her hardworking crews have been an enormous asset to conservation activities along the coast. And it starts all over again in four months!

Bristol was born in Toronto, Ontario where he obtained a Bachelor's degree in Biology and did a Master's degree in Mammalogy on a rare subarctic rodent. By then he had been in school for 21 years and decided it was time for an adventure! In an era when world travel was not particularly easy, he travelled with Robert Bateman for 18 months in a Land Rover, crossing Africa, India, Southeast Asia, and Australia. Bristol then returned to the British Columbian coast to study the evolution of the native mammals of the Haida Gwaii (Queen Charlotte) archipelago for his Doctoral degree at the University of British Columbia.

Bristol caught what he terms "Africanitis" when he previously crossed Africa, so he made an epic drive from London, England to Nairobi to teach wildlife ecology at the University of Nairobi for five years. Bristol pioneered the use of morphological patterns on giraffe necks to identify individual giraffes, which facilitated determi-

nation of home ranges and life history studies. A similar technique is used today to identify individual killer whales on the coast of British Columbia.

When Bristol returned to British Columbia he become the Director of the Royal Bristish Columbia Museum and managed a large staff. After six years the novelty of this desk job wore off, so he changed jobs and led the BC Ecological Reserves program. This allowed him to roam the province and establish protected areas for research and education. After his retirement, Bristol made 14 natural history documentaries and, ever the traveler, Bristol continues to lead eco-tours on four continents around the world.

Bristol has been an inspiration and role model for many people throughout his career – especially those of us at Raincoast. We would like to express our deep gratitude for all his contributions to conservation and to British Columbia's coast.

Ways to get involved!

Join the Raincoast Conservation Circle!

Raincoast appreciates and welcomes gifts of any amount. To recognize the contributions of those donors who are able to provide gifts of \$500 or greater, we welcome you into our **Conservation Circle**. In addition to any regular donor benefits, Circle members receive invitations to special events during the year, as well as a direct communiqué from our Executive Director.

To learn more about any of our giving programs or initiatives, please visit our website at:

www.raincoast.org
email us at:
greatbear@raincoast.org

or give us a call at:

250.655.1229.

We can't wait to hear from you!

As a registered charity, we rely on the generosity of donors such as you to conduct our educational and scientific programs. In fact, we depend 100% on donations for our projects.

There are many ways that you can contribute to the Raincoast Conservation Foundation.

Become a Monthly Donor

Please consider an ongoing contribution to Raincoast by becoming a monthly donor. You will be helping us to plan effectively around a dependable source of income while lowering our administrative costs. Signing on is easy and secure, and you can often give more – and feel it less – by distributing your giving throughout the year! Fill out the adjacent form, or visit our website at www.raincoast.org.

Give the Gift of Conservation

Need a unique and empowering gift? Consider honouring a friend or family member by making a donation to Raincoast on their behalf. For donations of \$50 or more, the person named will receive a card acknowledging your gift, a copy of our annual newsletter *Tracking Raincoast*, a subscription to our e-newsletter *Notes from the Field* and a screensaver slide show featuring majestic images of the Great Bear Rainforest.

Thrifty Foods Smile Card Program

With the Thrifty Foods Smile Card, 5% of your purchase is donated to our education and research projects. Simply load up your card, use

it to purchase your groceries and you'll be helping Raincoast with its critical environmental efforts! Joining the program is absolutely free. Give us a call and we'll get you set up with your card. We are very grateful to Thrifty Foods for this generous support and thank all of our existing cardholders.



Raincoast Images

Many of the researchers who work with Raincoast happen to be excellent photographers. Raincoast Images makes the finest of these photographs available for purchase. All proceeds from the sales of these stunning images go toward our continued efforts to protect the amazing wilderness captured in our photographs.

If you are interested in purchasing a print, please contact 250.483.6678 or email images@raincoast.org

Please photocopy or remove and mail

How you can help

YES! I want to be part of Raincoast's extraordinary initiatives to protect the lands and waters of the Great Bear Rainforest and the many animals that rely upon this vast habitat.

To make your donation: visit our website at www.raincoast.org/donate. Our convenient and safe online service is set up to issue CRA-approved e-tax receipts immediately following confirmation of your gift, *or* fill out and send us this form.

I am/We are making a single tax-deductible donation of:
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□ \$10 □ \$25 □ \$42 (Conservation Circle) □ \$50 □ Other
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A note to our US supporters To receive an IRS approved tax receipt, please make all cheques payable to: Raincoast US and send to: Raincoast US, PO Box 311, Orcas Island, WA 98280 (Our US office can accept tax-deductible contributions via cheque only. We apologize for any inconvenience.)

All donors to Raincoast will receive a subscription to our monthly e-newsletter, Notes from the Field and will be listed on the Thank You! page on our website. Tax receipts will be issued for gifts of \$25 or greater.

2008 Staff and Contractors

Chris Genovali Executive Director

Stephen Anstee Achiever Captain, Marine Operations

Doug Brown Field Station, Achiever and Research Crew

Heather Bryan Biologist, Rainforest Wolf Project

Chris Darimont Research Scientist, Rainforest Wolf Project

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Newsletter photography: Ian Jasma, Doug Brown, Chris Darimont, Caroline Fox, Chris Genovali, Aaron Hill, Tim Irvin, Thomas D. Mangelsen, Paul Paquet.

Newsletter editor: Claudia Copley Newsletter design: Frances Hunter, Beacon Hill Communications Group In 2008...

We welcomed **Kathy Heise** to the Marine Mammal Project team, **Yolanda Meijer** as our Development Director, the dynamic duo of **Ian Jansma** and **Doug Brown** as Field Station Coordinators (in addition to their *Achiever* roles),
and **Lynda Rowland** as our Operations Coordinator. We welcomed **Corey Peet**and **Peter Ross** to Raincoast's Board of Directors. Special thanks go to
stellar intern **Nicole Jascur** for outreach and data management. Congratulations to **Jennie Christensen** on the completion of her doctoral degree: *Factors*Affecting Persistent Organic Pollutant (POP) Accumulation in British Columbia
Grizzly Bears.

Thank-you to everyone who assisted with field and office support

Individuals

Amanda Adams, Gerald Amos, Don Arney, Rocky Ashton, Taylor Bachrach, Max Bakken, Katrina Bennett, Steve Bergh, Ben Best, Jennifer Brant, Jane Brown, Rosemary Bryan, Rob Butler, Alison Calestagne-Morelli, Curtis Campbell, Mark Carwardine, Chris Cheadle, Jennie Christensen, Albert Clifton, Lori Constan, Rob Davey, Nathan deBruyn, Jody Erikson, Gail Fiddyk, Bristol Foster, Marie Fournier, Julian and Liz Fox, Linda Frimer, Barrie Gilbert, Ian Giles, Johanna Gordon-Walker, Maureen Gordon, James Green, Jeff Green, Raechel Gulka, Jaime Harris, Bruce Hill, Brian Horejsi, George Hudson, John Huegenard, Harvey Humchitt, Frances Hunter, Rick Husband, Tim Irvin, Nicole Jascur, Larry Jorgenson, Jenny Kingsley, Erin LaBrecque, James Lawson, Jean-Marc LeGuerrier, Wayne McCory, Erl MacIsaac, Danielle McLaughlin, Jeremie Marko, Margaret Mason, Herman Meuter, Faisal Moola, Michelle Nelson, Erin Nyhan, Dyan Oldenburg, Craig Orr, Sarah Osberg, Christianne Palluau, Bill Perrett, Doug Peacock, Corey Peet, Briony Penn, Marnie Phillips, Chris Picard, Katrina Poppe, Heather Recker, Elliot Reece, Ian Reid, Tom Reimchen, Jennifer Reimer, John Reynolds, Edward Robinson, Leah Robinson, Marven Robinson, Teri Robinson, Anita Rocamora, Krista Roessingh, Peter Ross, Sandy and Savvy Sanders, Helen Schwantje, Dan Selbie, Kevin Smith, Barbara Souther, Aaron Springford, Chester Starr, Hugh Stimson, Ian Tamblyn, David Thomson, Kara Triance, Mary Vickers, Maggy Wages, Brent Wagner, Margaret Waterhouse, Saffrina Welch, Charlene Wendt, Steve Williamson, Chris Williamson, Chris Wilmers, Jane Woodland, Ross Woodland, Janie Wray.

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Top: Raincoast's wolf team proudly displays a Wings Worldquest flag during their fall journey to the Great Bear Rainforest. The flag represents historic and continuing accomplishments of women explorers internationally, including Raincoast's Heather Bryan in 2008. Centre Left: Jennie Christensen and Misty MacDuffee with blood, egg and tissue samples from salmon for Raincoast's grizzly contaminant study. Centre Right: Chris Darimont, Chris Genovali and Nathan deBruyn sampling the local flora. Bottom Left: Captain Brian Falconer on Achiever. Bottom Middle: Raincoast research crew, Amanda Adams, Heather Bryan, Rosemary Bryan and Doug Brown. Bottom Right: Science advisor Paul Paquet in the field.



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Each year since 1991, the *Maple Leaf* has introduced guests from across North America to the awe of the Great Bear Rainforest. We share a passion with Raincoast for exploring and protecting it.

Every day, we vote with our dollars for the society we want. So we've chosen to sponsor Raincoast's work. We also bring our guests to meet Raincoast scientists in the field. Their contribution to understanding and protecting the Great Bear is vital. We encourage and applaud your support of them, too.

In the same vein, please consider making your next holiday a vote for ecotourism, wherever you go. Travel *can* benefit conservation. If you wish to see the Great Bear Rainforest, we invite you to consider a journey on BC's classic tall ship, the *Maple Leaf*.





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