



Friends of Clayoquot Sound

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What's Up in this issue

Fight Climate
Change - Keep
Forests Standing

Intact Forest of
Upper Kennedy
Safe for 5 Years

Get a Handle on
Carbon Credits

Shifting Salmon
Farms to Closed
Containment

Sound Paddling

Second Harvest
the future of
non-wood paper

No to Organic
Farmed Salmon

Create Change
- propose a No
Idling bylaw

Clayoquot
Shorebirds

Ancient Cedar
Blows Down

A Rare Find in
Clayoquot Treetops

Create a Living
Legacy - a few
words in your will

Fight Climate Change



Keep Forests Standing

Old-growth temperate rainforest in Clayoquot Sound.

One of the best ways to fight climate change is to keep forests standing. Forests are nature's carbon sinks. Through the miraculous process of photosynthesis, the leaves of trees and plants absorb carbon dioxide from the air and convert it to

carbon, which is stored in trunks, branches, leaves and needles, roots, and also in organic top soil and leaf litter. Carbon dioxide, as we all know, is one of the greenhouse gases whose accumulation in the atmosphere is

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Intact Forest of Upper Kennedy Valley Safe for 5 Years

Enviros and First Nation Win Logging Moratorium

In fall 2006, BC Timber Sales, a branch of the provincial government, put forward a logging plan ("Forest Stewardship Plan") for west central Vancouver Island. The plan area includes the Upper Kennedy River in the northeast corner of Clayoquot Sound.

The Upper Kennedy is a scenic wilderness located west of where Hwy 4 (the highway to Tofino and Ucluelet) crosses Sutton Pass. It is one of the intact old-growth valleys that Friends of Clayoquot Sound and allies have been campaigning for years to keep

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When You Give to the Friends You Give to Clayoquot Sound

Friends of Clayoquot Sound is a small environmental group, but we aim big. Our mandate is to protect the ancient forest and wild ocean of Clayoquot Sound, one of the most magnificent and biologically rich places on Earth. Since 1979, we have achieved many successes, and have prevented tens of thousands of hectares of globally rare old-growth temperate rainforest from being logged.

But much more needs to be accomplished to ensure the ecological integrity of the Sound. We are working hard to achieve permanent legislated protection for Clayoquot's remaining intact old-growth valleys. Although these wilderness valleys earned Clayoquot its UNESCO Biosphere Reserve designation, they remain open for logging. We also work to cap the number of open-net-cage salmon farms in the Sound and convert them to closed containment that does not pollute the ocean or endanger wild salmon and other marine life. Our goal is to help build a non-destructive, conservation-based ethic and economy in Clayoquot Sound worthy of being an example to the world.

Donations from you, the public, enable us to continue our conservation work. When you give to the Friends, you protect Clayoquot Sound, one of Canada's and the planet's outstanding wild places.

Thank you for your donations!

Fight Climate Change: Keep Forests Standing, continued from cover.

causing global warming and other disruptive climate changes.

Until recently, scientists believed that old-growth forests (at least 100 years old) are not efficient carbon sinks because carbon dioxide uptake through photosynthesis is balanced by carbon dioxide emission from respiration and decay. The latest studies show that old-growth forests do indeed absorb more carbon dioxide than they emit, mostly because of carbon absorption by soil.

Regardless of the above, it is indisputable that logging of old-growth forests releases a large amount of carbon dioxide into the atmosphere. This is particularly true of our coastal BC temperate rainforests, where massive trees and old soils accumulate huge stores of carbon over centuries and millennia. Old-growth temperate rainforests of our Pacific Northwest region store more carbon per hectare than any other forest type. After logging, a large proportion of this stored carbon is released in 30 years or less because the slash left behind (branches, needles, shattered wood) emits carbon by decaying or being burned. The large biomass of underground roots also rots, and soil

disturbance and exposure accelerate soil decomposition. In addition, over half of logged wood ends up in short-lived products such as bark, sawdust, scrap off-cuts, and paper, which decay rapidly or are burned for fuel, thereby emitting carbon dioxide.

The BC government falsely portrays planting trees – while continuing to cut old-growth forests – as a carbon capture strategy. Although young fast-growing trees do absorb more carbon dioxide annually than old trees, young trees cannot capture enough carbon to match the huge initial output caused by logging old-growth with all its stored carbon. It takes at least 250 years for a replanted temperate rainforest to accumulate as much carbon as it held as old-growth.

Conservation groups have been protecting old-growth forests for years because of vital environmental services forests perform, such as purifying air and water, preventing soil erosion and providing wildlife habitat. Little did we know that we were also pioneers in fighting global warming.

Maryjka Mychajlowycz

Intact Forest of Upper Kennedy, continued from cover.

off-limits to logging. The ancient temperate rainforest of the Upper Kennedy is one of the few remaining undisturbed forests on Vancouver Island, where three quarters of the original forests have been clearcut logged.

The Upper Kennedy is also one of the wilderness hearts of Clayoquot Sound. It lies adjacent to the intact headwaters of five other valleys. These headwaters, back to back, form one of the largest untouched areas in Clayoquot. The Upper Kennedy is a rugged land of streams, lakes and massive ancient trees. It is a core area for biodiversity, with connectivity among six wild valleys. A spectacular hiking path, the Clayoquot Witness Trail, begins in the Upper Kennedy.

Not surprisingly, the logging plan did not sit well with the environment groups working to protect Clayoquot's globally rare and ecologically precious intact valleys, or with the Tla-o-qui-aht First Nation, whose traditional territory encompasses the

Kennedy River. Friends of Clayoquot Sound, Greenpeace, ForestEthics, Western Canada Wilderness Committee, Sierra Club, Natural Resources Defence Council and Tla-o-qui-aht lobbied BC Timber Sales and won a 5-year moratorium on logging in the intact headwaters of the Upper Kennedy. Four thousand hectares (10,000 acres) of magnificent, old-growth temperate rainforest are safe for another 5 years!

Deferral of logging in the intact Upper Kennedy also preserves options for the Tla-o-qui-aht, who are beginning to develop their own land-use plan for the entire Kennedy watershed.

Unfortunately, about 7,000 hectares of partially logged old-growth forest, further downstream in the Kennedy Valley, were not deferred and cutting is likely to begin next year. It's high time to phase out logging of all old-growth in Clayoquot Sound and Vancouver Island. We're working on it.

Maryjka Mychajlowycz

Get a Handle on Carbon Credits

At last a critical mass of scientists, countries, governments and ordinary people has realized that global warming and climate change are facts, a reality that must be dealt with vigorously. The problem is caused by human actions, and must be solved by us. We have, and continue to put escalating amounts of greenhouse gases, such as carbon dioxide and methane, into the atmosphere.

There are only two ways to reduce the buildup of greenhouse gases:

- 1 Cut back on emissions that come from many sources – the burning of fuels in industrial processes, the tailpipes of vehicles, methane gas from manure.
- 2 Pull carbon molecules out of the atmosphere and store them in soil and plants.

You can readily understand how mechanism #1 works. Emissions can be cut back by any greenhouse gas producer, from the hugest industrial polluter to the ordinary householder, through emission reduction technologies, cleaner fuels, energy efficiency, reducing vehicle use, increasing public transportation, consuming less and more wisely, and stopping some things altogether.

Mechanism #2, pulling carbon out of the atmosphere, is accomplished by increasing vegetation, most importantly trees, which are effective absorbers of carbon molecules.

And then there's the phenomenon of the carbon credit. One carbon credit is equivalent to one tonne of greenhouse gas emission reduced. Think of a carbon credit as a greenhouse gas not emitted to the atmosphere – as such, a commodity that can be bought or sold in the world marketplace.

Carbon trading, carbon exchanges and carbon offsetting are mechanisms intended to reduce greenhouse emissions by giving a monetary value to the cost of polluting the air – a cost of doing business, like water rates.

For example, a greenhouse gas producer/polluter is issued a quota by government. The producer must either reduce emissions to meet the quota, or be required to purchase carbon credits to offset the extra tonnes of

pollution emitted over quota. Producers of greenhouse gases emitting below their quota can sell their “excess” as carbon credits.

Carbon Trading: The carbon credit can be sold on the international market at a prevailing market rate. Countries with surplus credits can sell to countries with quotas and commitments under the Kyoto Protocol.

Carbon Exchange: The Chicago Climate Exchange began operation in the buy/sell of carbon credits in 2003. Since then, more than 65 million US dollars have changed hands in the buy/sell of carbon credits. The European Climate Exchange opened in Amsterdam in 2005.

Carbon Offsets: There is a worldwide craze for carbon offsetting. For example, wanting to offset things you do that produce emissions, such as a holiday flight or driving your car to work daily, you donate or invest money in “offsetting” projects that:

- cut back emissions – for example, alternative energies and solar panels, or
- pull carbon from the atmosphere – for example, mass tree-planting projects.

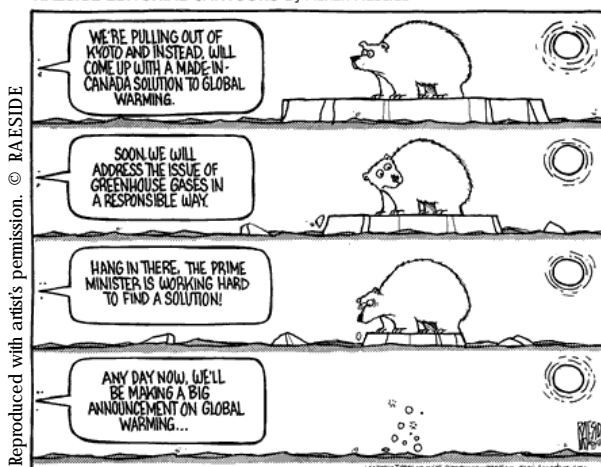
Over eleven billion US dollars have changed hands for carbon offsets at the European Climate Exchange. That figure is estimated to rise to two trillion dollars by 2012.

Carbon credits are obviously a hot commodity. As a mechanism, will the buying and selling of carbon credits be effective in actually reducing the emission of greenhouse gases, or is it a “greenwash”, a ploy that lets polluters buy their way out of having to reduce

emissions? Though there are problems around transparency, certification and monitoring, enthusiasts recommend accepting these challenges because of the potential value of carbon credits. Skeptics point out that greenhouse emissions are still increasing despite the billions of dollars of purchased carbon credits. What do you think?

Shirley Langer

RAESIDE EDITORIAL CARTOONS By Adrian Raeside



Reproduced with artist's permission. © RAESIDE

Last Minute News

Interfor Sells Clayoquot Logging Tenure

On March 30, 2007 Interfor sold its Tree Farm License in Clayoquot Sound to local First Nations, who financed the purchase by entering into a joint venture with Coulson logging company from Port Alberni.

Shifting Salmon Farms to Closed Containment

Although Clayoquot Sound is a United Nations Biosphere Reserve, you may be surprised to learn it contains the second largest number of industrial salmon farms in BC. Twenty-four open-net-cage salmon farm sites are located in the ocean along Clayoquot's sheltered inner coast.

Mainstream Canada (a division of Cermaq) recently applied for 20-year renewals for 9 of its fish farms in Clayoquot. Creative Salmon, the other fish farm company here, just received a 10-year renewal for one of its farms and has also applied for a new farm site.

As part of the Coastal Alliance for Aquaculture Reform (CAAR), FOCS opposes these recent applications because the weight of evidence indicates that open-net-cage salmon farms are harmful to wild salmon, marine ecosystems and sea mammals. Some of the problems associated with farming salmon in permeable nets in the ocean are: untreated waste, chemicals, antibiotics and pesticides dumped into the ocean; disease and parasite transfer from farmed to wild salmon; escapes of farmed Atlantic salmon into Pacific waters; and killing of marine mammals such as seals and sea lions that prey on farmed fish.

To solve these problems, CAAR has been lobbying to get closed containment technology, which provides a barrier between farmed fish and the ocean, implemented in BC. Instead of perpetuating the open-net-cage industry in Clayoquot Sound, companies operating here should be investing in closed containment.

FOCS and CAAR recommend the following steps to achieve environmentally safe, closed containment salmon farming in BC:

- shift provincial and federal funds from supporting open-net-cage salmon farms to supporting closed containment initiatives
- establish a 5-year time line for the transition to closed containment
- form partnerships among industry, First Nations and the conservation community to ensure an economically viable and ecologically sound transition of all salmon farms to closed containment systems
- invest in research that develops alternative feed sources. On average, it takes 2 to 5 pounds of wild fish (used in the feed) to produce 1 pound of farmed salmon. Farming salmon, a carnivorous species, is thus accelerating depletion of wild fish stocks around the world and resulting in a net loss of marine protein.

Dom Repta

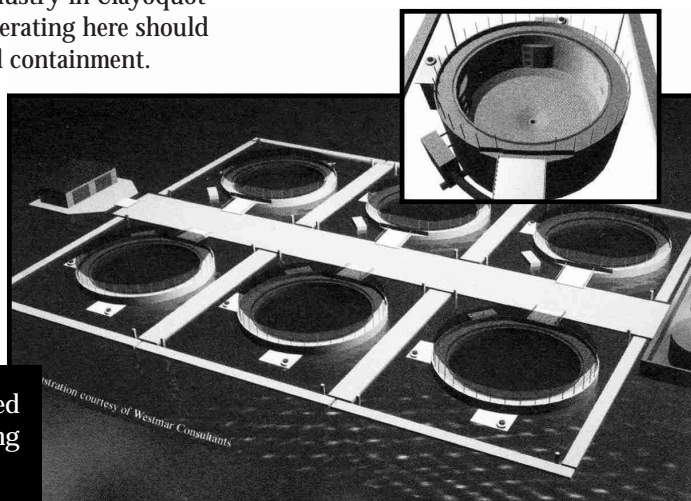


Illustration of closed containment floating tank system.

Overview of Closed Containment

State of the art technology in closed containment salmon farming that provides a barrier between farmed fish and the marine environment has already been successfully developed in British Columbia and Washington state. Efforts to further improve these systems are underway. BC has the potential to make the industry more sustainable and become a world leader in the field.

Salmon have been reared in closed containment systems in BC since 2001. AgriMarine successfully produced salmon at its land-based research facility in Cedar on Vancouver Island, marketing its product to small retailers and food outlets. Its research has provided an opportunity to examine many aspects of the husbandry of salmon in a closed rearing environment.

Although Agrimarine's salmon husbandry was successful, the economics of a land-based system proved challenging. To overcome this barrier, Agrimarine has developed an ocean-based floating concrete tank, a technology that incorporates many of the benefits of closed containment rearing, while reducing construction and operating costs.

Closed containment floating tanks can be located in or near any coastal community. Tanks with non-permeable barriers prevent the escape of fish and waste, as well as the transmission of disease and parasites from the farm to the marine environment. In turn, closed containment would provide economic benefits by protecting farmed fish from external disease and parasites, thus creating a healthier product and a higher yield.



Fabulous! The canoes are carved from Western red cedar by Gisele's father, Joe Martin.

Gisele and her partner, Doug Wright, started Tla-ook Cultural Adventures in order to make a living in a way that doesn't harm the environment.

Gisele is Tla-o-qui-aht First Nation, and during the

There are various ways to experience the splendour of Clayoquot Sound, motorized boats being the most common. The sound of their engines is constant during Tofino's tourist season. Float planes are also popular, and the roar of their take-offs makes people cover their ears. Worse, boats and planes emit noxious gases into the atmosphere that contribute to global warming.

Then there are Gisele Martin's dugout canoes. The largest one of the fleet can take eleven people out into the Sound. It's people-power that propels the canoe. People paddling in unison – just the sound of dipping paddles, no stink, no emissions.

canoe tours she speaks about indigenous culture and history in Clayoquot Sound (Tla-o-qui-aht means 'different people' in the Nuu-chah-nulth language). "I feel it is important to share cultural teachings, such as respect for all life," says Gisele, "especially now, when the environment is becoming polluted on a global scale."

Doug handles most of the business end of Tla-ook and says, "I feel better knowing that we're not costing the environment as we make our living."

Shirley Langer

Second Harvest The Future of Non-Wood Paper



Valerie Langer has great hopes for Second Harvest, a not-for-profit pilot project she is steering through the bureaucracy maze. Second Harvest aims to interest a national Canadian magazine in

doing a full publication run on paper made from waste agricultural fibre, such as wheat straw or flax.

Agricultural fibre is as old as paper itself. Until the early 1800s all paper was made with non-wood fibres such as cotton linters and flax. Although wood has dominated the North American and European pulp and paper industries for the past 150 years, non-woods continue to be present in abundance in the world paper supply, comprising approximately 50% of China's and India's manufacture.

"With markets increasingly stating a preference for non-wood papers, specifically agricultural waste, we can expect new mills to fill the demand," says Valerie. "Whether those mills are in Canada or Asia will be up to the industry." At least two Canadian pulp and paper companies are currently investigating wheat, flax and oat straws as a commercial fibre base. "If all goes well, Canadians can expect to see a popular magazine printed on paper made from 100% agricultural waste fibre on the stands soon."

Hopefully, utilizing "second harvests" from agricultural waste to make paper will be hastened by the need to protect forests worldwide to increase carbon dioxide absorption, the need to add income to the farm sector, and advances in technology to make pulping of agricultural fibre more efficient.

Shirley Langer

~ Valerie is a director and former forest campaigner of FOCS.

"No" to Organic Farmed Salmon

The National Organic Standards Board (NOSB) of the United States Department of Agriculture is developing organic aquaculture standards that could include the certification of BC farmed salmon. The US is the largest consumer of this product.

Thanks to public comments, in March 2007 the USDA voted 12 to 1 to exclude fish raised in open net-cages or being fed wild-caught fish from the initial US organic aquaculture rules. However, this decision will be revisited in the fall of 2007.

We need to continue to protect the integrity of the organic label and not let the negative impacts of current salmon farming practices hide behind a seal of environmental quality they cannot meet.

To view Friends of Clayoquot Sound submission to the NOSB explaining why farmed salmon cannot qualify as organic, visit www.focs.ca

Dom Repta

Create Positive Change in Your Community

Propose a “No Idling” Bylaw

Global warming is a scientific fact and we need to immediately reduce our carbon dioxide emissions. What can we do? For starters – this is an easy one – don’t leave your vehicle idling!

A car idling for more than 10 seconds wastes more fuel than shutting it off and restarting the car.

Municipalities around the world are introducing bylaws prohibiting idling vehicles. Does your municipality have a No Idling bylaw? No? Tofino doesn’t either...yet. It’s not about handing out fines, it’s about reducing emissions. Having a local bylaw in place makes it easier to ask others not to idle their vehicles, and educates citizens about how a “little thing” can be very important to our future.

Here’s an example of wording you can offer your municipality for its own No Idling bylaw:

“Idle” means the operation of the engine of a vehicle while the vehicle is not in motion and “idling” shall have a corresponding meaning. No person shall cause or permit a vehicle to idle for more than 3 minutes in any sixty-minute period.

Was your No Idling initiative successful?

Tell us at

www.focs.ca/climate_survey

Clayoquot Shorebirds



Photo: Adrian Dorst

Western sandpipers on Tofino Mudflats

Passages from David Pitt-Brooke’s book, *Chasing Clayoquot: A Wilderness Almanac*, 2004, Raincoast Books. Reprinted with author’s permission.

I have come for a look at one of Clayoquot Sound’s most remarkable – and least heralded – natural events. Even before I come to the edge of the forest, I can hear the subjects of my quest, somewhere beyond the screen of trees, talking, singing, quarrelling. It’s an odd, interesting sound, a faint musical twittering like the distant tinkle of wind chimes – or, as W. H. Hudson wrote: “like the vibrating crystal chiming sounds of a handful of pebbles thrown upon and bounding and glissading musically over a wide sheet of ice.” It’s the sound of very many small birds all vocalizing at once.

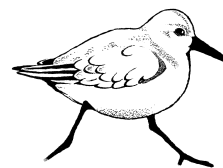
Over a period of weeks, in late April and early May, whenever the sky clears and the wind comes round to the northwest, great flocks of shorebirds settle onto the mudflats of Tofino Inlet to await the next southeasterly gale. There are whimbrels and godwits. There are dunlins and black-bellied plovers. There are dowitchers, sanderlings and knots. Most especially, there are thousands of tiny western sandpipers keeping company with even tinier least sandpipers. Every single bird is in the midst of its own incredible journey. Already they have come a great distance. Many of

them spent the winter – our winter – south of the Equator and most will travel all the way to the high Arctic for a brief breeding season.

This impressive spectacle goes largely unnoticed. When herring gather to spawn, when gray whales arrive on migration, when salmon are running, people sit up and pay attention. But every spring, shorebirds appear by the tens of thousands, spend a few nights and move on without arousing more than a ripple of interest outside a small circle of aficionados. (...)

Over the water, a great flock of western sandpipers whirls back and forth, like smoke in the wind. The weaving mass flashes white one moment, dark the next, as the birds show first the undersides of their wings, then the upper surfaces, all in perfect unison. Higher and higher they dance, up and down, around and around, finally over the trees and out of sight, lost in the mist.

Taken from May chapter, “WIND BIRDS: Mudflats and Shorebird Migration”



One of Canada's Biggest Trees Blows Down

A winter storm in Clayoquot Sound has uprooted the great cedar known as "Earth Mother" or "Big Mother". The massive tree was 'discovered' 20 years ago on Meares Island by photographer Adrian Dorst. It is estimated to be around 1000 years old and laser measurements showed it to be the second largest cedar in Canada (by volume). It towered 47 metres high and was 5.5 metres in diameter and 293 cubic metres in volume. For the non-metric, that's 154 feet high, 18 feet in diameter and 10,350 cubic feet in volume. Earth Mother

can be seen in the Western Canada Wilderness Committee's poster "Clayoquot, Land of the Giants - Save It Now!".

Local photographer Wayne Barnes, who discovered that the giant had fallen, estimates it came down during a hurricane-strength storm on January 9th. Clayoquot Sound, like much of coastal BC saw massive windstorms, seemingly one after another this past winter.

Earth Mother has now entered a new life phase as a nurse log, decaying slowly for hundreds of years on the forest floor, releasing nutrients to grow new trees and providing habitat for a different variety of animals.

The blowdown of this one ancient tree made headlines across Canada. But more importantly, thousands of old-growth trees continue to be logged in Clayoquot Sound each year. Help us stop the logging of old-growth forests – only buy paper products made from 100% post-consumer recycled fibre.

Kevin Bruce

Robert Van Pelt, author of *Forest Giants of the Pacific Coast*, measures circumference of Earth Mother cedar.

A Rare Find in Clayoquot's Treetops

An arthropod previously unknown in North America has been discovered in the rainforest canopy of Clayoquot Sound. The little critter, less than one mm long, is an oribatid mite, identified as *Nemacepheus dentatus* (Aoki, 1968). This is the first record of the family, genus and species for North America. In fact, only two other individuals have been recorded worldwide: the original specimen from Japan and the other from Siberia.

The mite's habitat was a soil mat in the canopy of an ancient tree in the Sydney Valley, an intact old-growth watershed untouched by logging. Forest canopies are one of the least explored ecosystems on earth. Researchers estimate one third of all arthropod species that will be found by the A.B.A.S.S. study in Clayoquot Sound will be unknown to science. (A.B.A.S.S. stands for Arboreal Biodiversity Across Spatial Scales.)

The temperate rainforest of the Clayoquot Sound Biosphere Reserve is a storehouse of biodiversity. The presence of undescribed and rare species reinforces the need for conservation of Clayoquot's old-growth forests.



Support the Wild!

Friends of Clayoquot Sound is a grassroots organization advocating protection for the ancient temperate rainforests and marine ecosystems of Clayoquot Sound. We are part of an international movement calling for a shift of consciousness in the way humans relate to the Earth. We need your support to continue to educate, and to inspire people to action. Please send in your donation today to help protect one of the most spectacular places on earth. Visit our website to find more ways to help.

Send your donation to:

Friends of Clayoquot Sound

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Ph: 250-725-4218 Fax: 250-725-2527 Email: info@focs.ca

Office: 331 Neill St., Tofino Check out our website: www.focs.ca



Name: _____

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Total Donation: \$25 \$40 \$100 Other _____

Become a member of our Protector's Circle with your gift of \$500 or more.

All members receive the informative Friends of Clayoquot newsletter hot off the press!

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NUMBER _____ / _____ EXPIRY

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Please charge my donation to my credit card noted above.

Join our Wilderness Team!

Your monthly donation will allow us to plan ahead more effectively and reduce administration costs.

To make monthly donations please fill in this section.

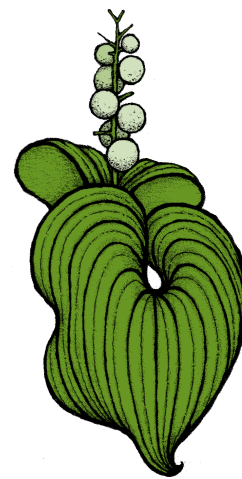
I hereby authorize Friends of Clayoquot Sound to draw on my credit card as noted above, the amount of \$ _____ every month beginning _____.

I (we) hereby authorize Friends of Clayoquot Sound to draw on my (our) chequing account a debit in electronic form in the amount of \$ _____ every month beginning _____.

SIGNATURE OF ACCOUNT HOLDER _____ DATE _____

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Please include a sample cheque marked VOID for banking information purposes.



Just a few words in your will. . .

Create a living legacy to help ensure the forests and waters of Clayoquot Sound remain forever wild and protected.

For information about making a gift in your will to Friends of Clayoquot Sound, please contact:

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