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A line, a simple and imaginary line, a straight and narrow demarcation on an otherwise bumpy and curvy landscape.

That line, which upon closer examination appears so tenuous, remains very real to those that cross it. We pass to and from other ways of life when we drive past the Peace Arch.

Canadians go south, buying toasters and cigarettes at Bellis Fair, littering the roads with cut-off clothing tags and Target receipts in hopes of avoiding duty fees. WWU students flock north to a place called Funky Planet to drink alcohol, sobering up just enough to get past U.S. customs at 2 a.m. Roadsigns change from miles to kilometers; money is no longer colored green.

While the differences on either side are clear to us, in one arena the two sides of that unwavering line stay unchanged: nature. In the mountains and meadows of our shared wilderness, which pre-date our random markings on the land, the 49th parallel’s meaning becomes hazy. Sure, as humans we all recognize the authority of the dividing line between nations, but what about nature?

And here is the problem: borders are inherently a human invention, a necessity for us to make sense of the world we inhabit. The rest of life on this planet could care less; it all adheres to different rules and boundaries, those of natural selection and ecosystems.

But our lines on the land, and what we do within those lines, affect the wilds on both sides. Salmon, born in Canada’s Fraser River, are scooped up in Alaskan fishing nets before they can return to their birthplace to spawn. Grizzlies, endangered and protected under U.S. environmental law, cross into Canada and suddenly lose their protection.

This issue of The Planet explores our borderlands, illustrating some of the difficulties that human-imposed boundaries present when dealing with something as boundless as nature. While that line beginning in Blaine poses many problems for these two close nations, the U.S. and Canada, it just as often holds opportunities for possible solutions. Our shared dividing line grants the chance for these two nations to come together in cooperation – to protect and respect that which does not recognize boundaries, that which must remain boundless.

Derek Reiber
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population of Canada: 29,450,000
population of the United States: 270,002,000
population density, in persons per square mile, of Canada: 8
population density of the United States: 75
amount of growth in the U.S. organic produce industry, since 1980,
in billions of dollars: 4.122
percentage of difference in cost, on average, between
organic produce and conventially grown produce: 57
Gas or oil wells drilled in the Y2Y region: 51,000
amount, in percent, of reduction of historic grizzly habitat in B.C.: 40-60
number of women allowed to vote when the mining law of 1872 was enacted: 0
millions of acres of federal land currently subject to the mining law of 1872: 432
miles of rivers polluted by mining damage nationwide: 12,000
millions of tons of marine fish that go into production of pet and
other animal foods and industrial products: 29
number of species that become extinct every hour: 4
number per year: 51,300
estimated number of species in world: 14,000,000
number identified: 1,750,000
speed that Lansat satellites orbit the Earth, in miles per hour: 438
days for Lansats to circle the Earth: 16
amount of water in gallons used by each person in an average family residence: 800
amount used to produce a hamburger, fries, and soft drink: 3,319
millions of gallons of sewage that flow
into Puget Sound daily from Washington state: 900
number of times that would fill the Kingdome: 1.75
millions of gallons of sewage flowing daily into the Fraser River in B.C.: 792
percent of Canadian population that live within 100 miles of
the U.S.-Canadian border: 75
length, in miles, of the border: 4,000
percentage of all salmon production accounted for by fish farms in 1980: 1
percentage in 1994: 36
I am one of only a handful of people left on the earth. For all I really know, I am the last. Over the past five years people have been slowly dying. My brothers, my grandma – even my dentist. Everyone, gone forever. How could this be happening?

The last people I saw were my neighbors, the Stewarts, just two weeks ago. Desperately, they headed north on foot from Bellingham on what was left of the old Interstate 5. They are making a big mistake I thought. As they left, I couldn’t help but flip them the bird. I never liked them anyways - the whole family worked for Georgia Pacific.

Knowing better, I decided to stay. I have spent my whole life here watching this town grow. This is home. I have also watched it die. At some point the buildings, streets and factories began to give way to a new generation of forests. New species of plants and animals evolved. Another species became endangered: Humans.

Thinking back I could easily fit the pieces of the puzzle together. It all started with many plants and animals becoming threatened, endangered, and then extinct. They were dying, right here in the United States and Canada, and nobody seemed to give a damn. Some conservation and wildlife agencies were desperately trying to rebuild these species with Canada, but there was a lack of mutual species protection legislation between the bordering countries.

A world of change

Joe Scott, Conservation Director for the Northwest Ecosystem Alliance (NWEA), explained to me that “We are spending millions of dollars to try and conserve some of these species, many of which are involved in reintroduction programs, and when they cross the border they are totally unprotected. Even though Canada signed the biodiversity convention in 1992 they have done nothing since then.” Stewart Elgie, managing lawyer for Toronto’s Sierra Legal Defense Fund, concurred: “It’s like a hospital that registers its patients but doesn’t treat them. We identify the species at risk, diagnose what’s wrong, but then we don’t treat them. It’s absurd.”

Global environmental issues are often impacted by the decisions of each individual country. The Biodiversity Convention requires that a country develop or maintain necessary legislation and/or other regulatory provisions for the protection
of threatened species and populations. Oddly enough, Canada was the first nation to sign and ratify the convention.

"Why is Canada failing to enforce this regulation?" I asked Scott. "The U.S.-Canadian timber trade policy seems to be driving an unsustainable logging level in British Columbia, which has a direct effect on many environmental issues, including endangered species," he replied.

In reaction, NWEA tried to influence policies and negotiations for the treaties to take into consideration environmental effects. "To date they have not," remarked Scott. "Basically, we are importing cheap lumber and exporting extinction."

Opinion polls, according to the New York Times, show that an overwhelming majority of Canadians support laws to protect endangered species.

So why are these laws not in place? Canada is hesitating. Its ten provinces often ward off the power of the federal government. This local decision-making makes the passage of federal laws more difficult. The call for an election last spring brought an end to all pending legislation, including an endangered species act. For reconsideration, it will have to be reintroduced to the new Parliament.

Currently, Canada has no idea when a new version of the endangered species act will be presented to Parliament. Some officials say that Canada is afraid to follow the path of the U.S., which signed its Endangered Species Act into law in 1973, because of the adverse effects of such legislation.

Jack Munro, chairman of the Forest Alliance of B.C., a logging trade group, wrote: "U.S. legislation had produced only modest conservation benefits, while costing thousands of logging jobs to save species such as the spotted owl."

Just a few years ago things got really bad. Pollution became worse than ever. Every drop of water that we used, whether to shower or drink, was bottled. I wouldn't let a drop of rain come near me. Plants and animals rapidly died out, except for the stronger species. These are the species that I have come to know so well today. These are the ones that have pushed humans near extinction.

Going, going . . . gone

In the past, from the years 1600 to 1900, mammal and bird species were disappearing at the rate of about one every four years.

The Sierra Club states that presently, an average of four species (animal and plant) become extinct globally every hour—over 50,000 a year.

When Lewis and Clark strolled through the lower 48 States long ago, there were over 50,000 grizzly bears. There are less than 1,000 today. Within the next 20 to 30 years we risk losing one quarter of the world's species.

In the United States, we have not fully considered some of the long-term consequences of habitat destruction, natural resource exploitation, and the introduction of non-native plants.

Since 1980 over 250 plants and animals have disappeared in the U.S. Our failure to realize the value of maintaining these species should be a lesson to Canada to increase its species protection in order not to follow our path.
The number of at-risk species in Canada has risen 21 percent since 1992. Currently there are 291 endangered species in Canada.

Weeds. Common garden weeds. They somehow gained a tolerance for human chemicals that made them completely resistant. They just began growing like trees, uplifting houses and splitting highways. Insects have grown in size and, more importantly, in numbers. The pesticides that were once used to control them began making them stronger with each use. They are everywhere. In my car, in my shoes – even in my soup.

Weed salad, anyone?

A single weed from Europe has given the world seven crops, including cauliflower, cabbage, and broccoli. Over one half of our medicines come from National Forests. The Pacific yew produces the raw ingredients for ovarian cancer drug treatment. Leukemia has been treated with the pharmaceutical value of the rosy periwinkle. Bats helped with the development of sonar, and arthritis can be treated with bee venom.

Forests and wetlands also serve as a water filter for pollution. It has been estimated that there are over 14 million species in the world. Only 1.75 million have been formally identified. What about all of the possibilities that could have occurred with each of the species that are now extinct? A cure for AIDS may have been in our hands.

God, I am scared. The animals, about two years ago, were all but gone. But several groups of them survived. These have cross-bred and matured with human pollution and intervention. They want humans to be in their habitat, because we are a source of food for their survival. I can remember watching so many of my friends and neighbors being taken by these creatures. In the past, destroying their habitat had made them weak. We should have given them their space back then – now they want all of it.

You win some, you lose some

Logging roads, for example, are bad news for many species. They are access lanes for hunters, snowmobiles, and all-terrain vehicles. They intersect and divide species habitats, along with providing a bridge for invasive species. Many species will not cross a logging road.

“Canada has very lax forest practice codes. What codes they have go unenforced. To date there have been no prosecutions as a result of British Columbia forest practice codes. Not one,” exclaimed Scott. It is frustrating when the species that we are trying to rebuild cross the boundary from the U.S. into Canada and are lost due to a lack of legislation. Something must be changed. Canada has much to learn from the U.S.

The U.S. is "ahead" of Canada. The U.S. has already wiped out or endangered many of its species. Canada is following our path, but can take the necessary steps, such as endangered species legislation, to preserve its species instead of trying to rebuild them as we are. Since Canada has a significant share of the world's natural resources, it faces unique responsibilities to protect them. This includes trans-boundary endangered species issues.
A good example of an ongoing endangered species reintroduction program involving both the U.S. and Canada is that of the Woodland Caribou. These Caribou are the most endangered large mammal in the U.S., and the ongoing project in northeast Washington is unique.

John Almac, a Washington State Fish and Wildlife biologist, informed me that “Canada has been very helpful. We could not do this without them. They provide all of the donor animals for the transplant.”

The B.C. Ministry of Environment and Parks, U.S. Fish and Wildlife, U.S. Forest Service and the Idaho Department of Fish and Game each play a role in this program. It seems as though the number of caribou is higher in B.C. than the U.S. Almack explains why: “[It is] simply because we as humans haven’t been there long enough yet to screw it up as badly. B.C. biologists recently produced a caribou plan for the entire province because they see the writing on the wall. If they don’t start planning for caribou now, they will end up losing caribou just as we have.”

Some of the major threats to caribou survival are predation and habitat loss. “If the population was at a higher level it is likely that predation would not be such a problem, but every animal we lose now is critical,” Almack said. Most biologists involved with the caribou feel that cougars are the main predators for the caribou, followed by bears, wolverines, lynx, snow avalanches, and vehicle collisions.

In the U.S. the loss of habitat is controlled by recovery zone restrictions, but in B.C. there are large areas unprotected by any agreement or are privately owned. “We are slowly isolating this population from connections with other caribou further north. The likelihood of local extinction increases drastically when the population is isolated into small groups like ours,” Almack said. The outlook for caribou in the U.S. and southern B.C. could be grim unless they can figure out what is causing the high mortality in their region.

Recovery efforts, such as the Woodland Caribou, need funding. “We are fighting for money all of the time, but so far not getting anywhere. B.C. is reliant on us; if we lose funding here, they are also dead because it’s a joint project,” said Almack. “I lost 39 percent of my funding last year due to federal budget cuts, probably more this year.”

Looking out over the bay I can see the images in my memory of ships slipping into the fog never to return. I know that the ocean has taken those ships. The ocean and its species has also evolved. I know that the Stewart family is gone forever.

Although alone now, I feel that something is right. The town of Bellingham is almost completely overgrown with strange plants. Often the last battle of an endangered species is that of habitat.

With nightfall approaching I can hear the sounds of those strange animals getting closer and closer.

It’s not over yet

Giving species viable habitat to live and grow within is important to our own survival. “It is something that we should treasure and preserve because of its wonder – because of its incredible evolutionary potential,” said Scott.

“Most importantly, we need to work on the restoration of attitude to the extent that we tolerate the needs of these creatures. We are in a position to wipe away everything that we have, but we are also in a good position to save it. This restoration will need to come through education.”

The choices we make today will tell us more about ourselves and our future than the species that are saved.

Christopher Miller only eats doughnuts from New Zealand until they give him permanent residency.
From the majestic Rocky Mountains of Yellowstone National Park to the Mackenzie Mountain Range of the Canadian Yukon, millions of acres of beautifully forested wilderness are home to animal populations of all types. This pristine land glimmers as the last true jewel of North American Wilderness. The jagged peaks of the Rockies soar into the air as the range makes its way across the border into Canada, providing habitat for endangered species such as grizzly bears, wolves, and wolverines.

This is lush wildland, a mountainous region spread throughout two nations. However, the same territory provides quite an opposite image to Canadian and American industries that instead look upon the area as a veritable gold mine, full of valuable resources for economic consumption. What, then, will happen to this 'last frontier' in the face of advancing technology and skyrocketing demand for primary resources?

For decades environmentalists have been researching the need to protect this vast bioregion—the result is The Yukon to Yellowstone Conservation Initiative (Y2Y).

The Y2Y is spearheaded by environmental agencies in the United States and Canada collaboratively working to protect the bioregion from Yellowstone National Park to the Mackenzie Mountains of the Yukon. For years, individual scientists and environmentalists have been working on ways to protect the multitude of viable species in the area, conserve their respective habitats, allow for the migration patterns of large carnivorous species, and to protect the land that allows the complexity of diverse flora and fauna ecosystems to remain in existence.

Formerly dispersed researchers on both sides of the U.S.-Canadian border have come to work together, to allow for a broader view of environmental comprehension. Their ambition is to protect enough land so that large carnivorous animals can maintain their migratory cycle, in turn protecting all that live within the ecosystem.

The Y2Y bioregion makes up 1,290,514 square kilometers throughout the Pacific Northwest. Initiative participants have had difficulty deciding on an actual border for the Y2Y region. Land use by industry and encroaching domestication has already shifted the migratory patterns of many animals. It was finally decided that the borders of the proposed Y2Y region be left less concrete. The Y2Y boundary winds through five states in the U.S. and four Canadian provinces, reaching a full 3,200 kilometers (1,900 miles) in length.
Core areas within the region such as national parks are governmentally protected for the sustaintment of indigenous animals. Yet, it is stated in the 1997 Y2Y draft review A Sense of Place that, "None of the National parks in the bioregion appear to be large enough by themselves to protect viable populations of all large carnivores."

Throughout the Y2Y region, core areas do not provide enough territory for migratory cycles of grizzly bears, wolverines or wolves without interference from the enclosing public. Fragmentation of habitat leads to the vulnerability of small dense populations of species. Isolating species within small protected regions creates the risk for sudden disaster. Animals within these regions can be wiped out entirely by drastic events such as wildfires, disease, and run-ins with human population.

"It is not that there is not adequate habitat out there anymore for bears, it’s just that all the bears get killed. They get killed by somebody when they stumble into their ranch, they get shot illegally, they get killed by people," says Tom Platt, reserve design coordinator for the Northwest Ecosystem Alliance. "It is a chronic situation – that is why you have to identify and protect unfragmented landscapes."

If the entire region is protected, the ecosystems throughout prosper as well. Connecting core protected areas for large carnivorous animals simultaneously provides for the needs of smaller species. Birds and fishes are species protected by the consideration of larger species, hence the reason why grizzlies and larger carnivores are a primary focus of the Y2Y effort.

But Y2Y participants have found difficulties when attempting to plan for the connection of lands across the U.S./Canadian border. Conflicting regulations on land management and private ownership have caused problems with Y2Y planning. Land uses on opposite sides of the border are often different, making attempts to collaborate difficult. For example, land on one side of the border may be reserved for an oil excavation site, while the connecting land opposite the border is protected habitat for endangered wildlife.

These issues are not unique on the border. Many timber, oil, and agriculture corporations hold long-term contracts for land along the border within the Y2Y. Private ownership creates mismatches on the borderline, which serve as a hindrance to the effectiveness of migratory planning.

The extraction of primary resources also threatens conservation efforts to support the migratory needs of large carnivores.

Section 2: across southern Canadian Y2Y

Interior Plateaus
Columbia Mountains
Canadian Rockies
Interior Plains

Section 3:

Fraser River fault zone
Kamloops
Rocky Mountain Tranch
Banff
Calgary

10 planet
Commercial forestry within the Y2Y bioregion did not begin until the 1930s, but since has grown rapidly to a current level of 17.8 million square meters of forest harvested yearly.

Oil and gas excavation has also increased similar to forestry. Future demand steadily increases, as reported in A Sense of Place, "approximately as many wells as currently drilled will have to be drilled prior to the year 2015 just to maintain current rates of natural gas consumption in North America." It may prove to be a tough battle to keep resource excavation out of the Y2Y.

Creating a protected bioregion that excludes resource extraction could have a negative effect on economic growth, say Y2Y detractors. But Y2Y could also have the beneficial effect of stabilizing growth by shifting economies toward alternatives other than resource extraction. Platt sees this already in progress: "[Y2Y] is changing the economy. It's not a resource hinterland as much as it once was. Now it is turning into a place people move for a higher quality of life, also information-age business, computer business, arts, and crafts. It is a much more diverse economy."

A massive influx of population to the region has the ironic effect of reducing the area's aesthetic value, the very reason why people move to the Northwest. Increasing population can be just as harmful as resource extraction, primarily due to its interference with grizzly migration. But the difference is that humans have the ability to work with the indigenous animals for their survival.

Y2Y attempts to work with the general public to stress the importance of human cooperation in maintaining grizzly habitat. "One of the goals of Y2Y is outreach and education to inform people of conditions in the area, so that people moving in are predisposed to see the high quality of life maintained," remarks Platt.

It is an awesome undertaking; imagine forested land, dotted by lakes and streams, extending from Yellowstone to the Yukon - a land that would be cherished for generations to come. As population continues to flood the region on both sides of the border, the ability to create protection plans such as Y2Y will steadily decrease. The chance for the Y2Y initiative to falter now and arise again in the future is quite dismal. The time to act is now.

Y2Y shows that it is possible that we can provide for the future, by looking beyond our human-imposed borders and working together to preserve this beautiful landscape for now and the future.

Chris Sunde and Ben Sanders are freshman dropouts of WWU that sleep in the Lake Whatcom model in the Environmental Studies Building when it is cold outside.
looking forward by looking back

Who are the better environmentalists — Americans or Canadians?

by Amy Robinson

I set out to find the answer by exploring the cultural mythologies of Canada and the U.S. that formed the countries' environmental ethics. I started my quest with the common, romanticized notion that Canadians are greener than Americans, with standard histories that go something like this:

The U.S. was settled by a rowdy group of cowboys geared up to whip this country into shape and conquer the wild. American expansionism encouraged pioneers to spread themselves out across the wilderness and subdue anything that got in their way — leaving Native Americans and buffalo rotting in their destructive wake. This capitalistic and self-centered conquering mayhem became the foundation for the United States.

Meanwhile, across the border, the Canadians were sharing tea with the native people and communing with nature. Their houses were built carefully so as not to disturb the surrounding ecosystems and a peaceful socialist government was put in place. Canadians now lovingly gaze out upon the pristine landscape of beautiful British Columbia, where beaver and grizzlies roam.

But alas, after talking with the experts, the errors of my simplistic notions and stereotypes were exposed. The first piece of truth came while bushwhacking with my Ecosystem Management class and professor, Bert Webber.

I heard him use "out" and "about" Canadian-style, so I pinned him as a Northerner and explained to him my perceptions of environmentalism in Canada and the U.S.

This former Canadian resident pointed out that in fact, Canada has many of the same environmental problems as the U.S. — such as old-growth forestry, industrial pollution and species extinction.
With a population of about 30 million, or one-tenth the U.S. population, and about 150,000 square kilometers more land than the U.S., Canadians' overall environmental impacts are less, simply by virtue of population dispersal. But Canada still suffers from environmental problems and resources that are exploited.

Ken Millard, the Director of Galiano Conservancy in British Columbia, was raised in the U.S. but emigrated to Canada. “Individuals in Canadian society have more impact on government than Americans do,” he believes. “Canada has the same environmental problems [as the US] but to a lesser degree. This is due to less pressure from a smaller population and the explanation doesn’t go much deeper.”

Tony Gulig, an advising coordinator at Western’s Academic Advising Center and an adjunct assistant professor of Canadian-American studies, disagrees with the belief that Canada has less environmental degradation. Canada is a country based on resource extraction – there has been great exploitation of resources, only without the same amount of industrialization as in the U.S. “Most of the degradation in Canada is invisible because it does not occur as proximate to the population. It’s not the Love Canal, instead it’s a uranium mine in Northern Saskatchewan that no one has seen.”

Canada is following in the footsteps of the United States’ environmental history. Both countries were settled by Europeans informed by the Enlightenment, with beliefs that humans can and should control nature.

Don Alper, Director of the Center for Canadian-American studies, addresses this historical perspective: “I think that in general the idea that nature was here to be used is pretty much the same in both countries.”

Gulig concurs that “settlement in Canada follows, in many cases, patterns in the U.S. A substantial difference is that the law goes out first in the Canadian West. The interesting thing that Canada had was the model of the U.S. to draw on the positive aspects and try to correct some of the negative aspects. For example, the Canadians learned from the violence and amount of money that went into the American West to develop the land and subdue the Native Americans. Canadians learned from this and the result was a more peaceful experience.”

In the U.S. it was not until the 19th century that environmental problems reached a level where activists and government began to take action. In 1872, Yellowstone, the nation’s first National Park, was set aside. Later legislation established the national forest and national wildlife refuge system. The Endangered Species Act and Clean Water Act, among hundreds of other environmental bills, were passed.

In Canada, in 1909, the first substantial national forest was set aside and the Canadian parks system was created during the Depression. Preservation seemed absurd to many at the time because “the myth of superabundance easily carried into the 20th century [in Canada],” explains Gulig.

“Interestingly enough, Canada is behind the U.S. I think that there is a common perception that Canadians have their act together, but the environmental regulations are not there,” says Alper. The Canadian government does have policies to protect the environment, but there is more latitude and room for negotiation in Canadian law. “It’s a great environmental policy if every group had the same pull; unfortunately it is industry that has the greatest power.”

Not only is Canadian environmental policy weak, but resource extraction practices in Canada are relatively primitive. A prime example is the logging industry. “Compared to our clear cuts, theirs look like children were out playing with toys – it is mind boggling. Not only are there no riparian zones left, but logs are even dragged through streams,” Joe Scott, the Director of Conservation at Northwest Ecosystem Alliance, passionately explains. “The timber industry in B.C. is more powerful than it has ever been here and provincial forests are placed in the hands of the
timber industry to manage."

The history of a country largely shapes the environmental ethics of the people; the differences between the ethics of the U.S. and Canada are subtle. The rugged individualism and the idea of an intrinsic right to economic prosperity and ownership of land, engrained in the American character, is not as prevalent in Canada; therefore Americans may be in greater need of regulation than Canadians.

Some contend that Canadians are more connected to their land. "There is something in the Canadian psyche that connects them to their natural environment. Canadian icons and images tend to have natural imagery, so in that sense Canadians do not think of themselves as urban dwellers. Instead they think of themselves as occupying this large land that is beautiful and in parts untouched," explains Alper.

"Canada can look to us in terms of what is at stake and what not to do since Canada has not yet destroyed ecosystems like we have. They can also look at our [environmental] laws that are some of the most thorough and far-ranging in the world," says Scott, addressing what can be done in the future.

Alper points out that this could be a difficult task: "One thing that really upsets Canadians is when Americans proceed in telling them what to do." They view this as another form of American imperialism. Canada could learn from the U.S., yet Americans will need to be sensitive in their encouragement of Canadians to look at both good and bad American environmental experiences for potential lessons.

There definitely is a need for Canada and the U.S. to cooperate, since the two countries share such a large boundary. Both Alper and Scott believe that we have a tremendous opportunity in the Georgia Basin/Puget Sound ecoregion because it contains a human population that speaks the same language and is also relatively environmentally conscious. This area could serve as a model for the entire world. "If we can't do it here," says Alper, "where the border doesn't mean much, you sort of wonder, 'how are we going to do it anywhere else in the world?'"

So who is more green? After chatting with an ex-American turned Canadian, and an ex-Canadian turned American, as well as an American environmentalist and two Canadian-American experts, the answer remains unclear.

But perhaps the question of "green-ness" is unfair. These countries have different histories, geographies and levels of environmental awareness. Still, with the long-shared boundary, and many interests in common, a race to "out-green" each other could yield many positives for the people of both Canada and the U.S.

Before the two countries work to address specific issues, we must first view the larger picture. If we realize that a straight-forward comparison is not possible, the question "who is better?" will cease to exist.

Amy Robinson loves biking around in rain, sleet and especially sunshine on the Green Hornet. After she graduates, she is going to get paid to have fun and save the earth.
While walking down to get a morning espresso, the smell of Georgia Pacific wafts by. As you begin to ingest the burning wet tennis shoe smell of its air pollution you wonder: Doesn’t GP know about their air pollution?

Air pollution is a problem shared by each and every one of us. Whether we drive a car, use wood stoves or operate an industrial plant, we are all participants in the conveniences of modern technology, which unfortunately cause pollution to the environment.

Living in Whatcom County, so close to the Canadian border, one can’t help but wonder about the air pollution situation: Do we receive air pollution from Canada, or do they get some from us?

Considering the several industrial plants in the Whatcom County area, it does not seem unlikely that there may be air pollution problems along the border. The Northwest Air Pollution Authority’s (NWAPA) annual report on the Whatcom County area was better than one might guess. With five industrial plants – Georgia Pacific, Tosco, Intalco, Arco – there was only a total of 53 days of moderate air pollution in the county. The remaining 312 days of testing were in the good range, with not one day falling in the unhealthy category.

With a much larger metropolitan area centered in Vancouver, it would seem that B.C. would experience some air pollution problems. However, the air quality in Canada is comparable to the quality in Washington.

There are several active programs implemented in the B.C. area that effectively cut down on air pollution, such as the Clean Vehicles and Fuels Program. Under this program all new vehicles are required to meet the same emission standards as in California. Other programs such as SCRAP-IT give rebates, or one-year bus passes, to pre-1983 vehicles that are turned in to be scrapped.

According to the NWAPA, the major factors that contribute to low air pollution are “low population and associated traffic densities, as well as meteorology that regularly favors dispersion.” Air pollution that is created either gets swept out to the sea or filters itself through the rain cycle.

Many people consider the Northwest one of the most beautiful places to live, thanks to our clean air, beautiful scenery, and good neighbors.

However, according to the group Zero Population Growth, by the year 2020 Seattle and Vancouver are expected to double in size, an increase of about 2 million people. The space between these cities may fill in, due to suburban development and urban sprawl.

A greater population brings added environmental burdens – increased car commuting, as well as increased demand for fuel, electricity and water.

Armed with the knowledge that a population boom is imminent, the challenge is to plan for the future: to implement legislation that will minimize the effects of the population surge on both sides of the border.

While there is not yet an air pollution problem in the Northwest and Lower Mainland area, we must accept the challenge of the future and continue to find ways of reducing air pollution.

There are a number of ways to reduce air pollution – whether it be taking the bus, carpooling, or regulating the use of wood-burning stoves. The most important thing to remember is that the process begins on an individual level.

Phillip Sampson is an English major who will fight the systematic oppression of capitalism on the people.
Stay inside. Lock your doors. Hide your children. The black helicopters and the blue helmets - they're coming!

"The international ecosystem planned for the North Cascades is just the beginning of an overall plot to create a one world government, economy and religion . . . United Nations' troops and helicopters are already in Washington State."

Dispersing doomsday fear through an audience of 300, conspiracy theorist Don Kehoe revealed his version of a scheme at a 1994 meeting in Wenatchee that was about to create a new world order: a proposal to create a U.S.-Canadian cooperatively managed park.

by Shane Powell
Paranoia and panic prevailed, and the long-awaited "Cascades International Park" never became a reality. Instead, its four years worth of massive planning, expensive studies, lengthy proposals, exhaustive publicity and excitement left a trail of freaked-out conspiracy believers and exasperated environmentalists in its wake.

The events began to unravel when Bellingham’s Northwest Ecosystem Alliance (NWEA), then known as the Greater Ecosystem Alliance, combined with 15 other environmental organizations in 1991 to put forth formal ideas for the park.

The organizations emerged from both sides of the Canadian-U.S. line and banded together in their campaign under the name "Cascades International Alliance." Their union was a cooperative attempt to distinguish a sensitive area and more effectively manage the U.S.-Canadian-shared North Cascades ecosystem. Their ultimate plan and hope was to overcome what they saw as poor coordination between state, provincial and federal agencies.

"This was a large-scale attempt to better protect this substantial area," said Mitch Friedman, executive director of NWEA and key player in the proposal.

The park’s proposed strategy was to join together existing protected areas, many of which extended across the Canadian border, to further safeguard the territories in between. The eventual formal release of the proposal in 1995 determined boundaries to include the North Cascades National Park, Ross Lake and Lake Chelan National Recreation Areas and the Mt. Baker-Snoqualmie, Okanagon and Wenatchee national forests. North of the international border, the proposal included Manning and Cathedral Provincial parks and Skagit and Cascade Provincial recreation areas.

The entire ecosystem is habitat to widely recognized threatened species and contains far-reaching areas not yet ripped apart by logging roads. The only population of endangered lynx in the lower 48 states stalk the area. It also supports a few of the sparsely numbered grizzly in and around Washington.

The park’s supporters worked steadily to advertise the benefits of staying one step ahead of the growing urban sprawl nearby and tirelessly promoted the crucial protection of these species and the natural systems found within the area. Their foundations included plans for habitat restoration, economic growth through tourism, better relations and management planning between the U.S. and Canada.

Trudy Frisk, a speaker for Canada’s Green Party, expressed her support for the park by explaining that Canada currently has no Wilderness Act and no endangered species legislation. She said that by cooperatively managing the park "we can perhaps influence the Commission on Resource and Environment [in Canada] to take further steps."

At the time, Canada had actually shown a great deal of support for the park’s proposal. British Columbia’s Environment Minister publicly expressed his endorsement and B.C.’s park officials supported the idea.

“Our model, before the release of the proposal, was that we were going to announce to the world that we were thinking of this, and invite people to participate with us," Friedman said. "We thought an international park would be a popular concept, under the assumption fed to us by the public of desperately wanting to preserve endangered habitat."

Little did Friedman and his alliance know, protecting habitat was the furthest thing from a growing population’s minds.

People retorted with cries of outrage and conspiracy. Fear of Big Brother sent people scrambling. The invented slogan and proclamation for the park, "Nature Has No Borders," had people believing U.S. borders were being erased and there was soon to be a new world order comprised of a United Nations central government. In reality, the statement’s only purpose was to bring to light the fact that ecosystems and its inhabitants do not, of course, adhere to our man-made borders.

NWEA attempted to advertise and support the park by distributing a poster that displayed the Greater North Cascades ecosystem as a shaded area with the
"Nature Has No Borders" slogan above it. Certain people mistook the entire ecosystem to be a representation of the park's borders. They believed that a massive area, including Bellingham, Wenatchee and Mt. Vernon, was to be turned into a protected nature reserve.

Chuck Cushman, head of the Wise-Use Movement, was the first serious opposition the Alliance ran into.

"The farmers, ranchers, the timber and fishing industries – everything would have been run by the government."

"Cushman started going around to towns telling people that we were going to close them down by making this big park," Friedman said. "He was a threat because he didn't have the excuse of being a moron. He could get people to believe him. He was a 'sane cynical bastard' who saw personal gain in organizing resistance to the environmental movement."

Although the Alliance specifically expressed that no private lands were to be included in the park's proposed boundaries, that didn't stop people from believing Bellingham, along with the rest of the area, was soon to be dismembered from the U.S. "People believe what they want to believe," said John Miles, professor at Western and advisor on the International Park. "They displayed the map saying, 'you're going to be controlled by these blue-helmeted soldiers' and people believed them."

Miles also explained that "in a lot of these North Cascade communities, many people see preservation, which curtails timber harvests, as a move to deprive them of their culture, lifestyle and livelihood. The park proposal was just another example, to
them, of government out of control."

People were just plain freaked about losing their land to the government. NWEA received a letter that stated, "you bunch of commies, stop trying to take away our freedoms." They figured preserving nature was undoubtedly going to infringe on their constitutional right to own and work the land.

"The farmers, ranchers, the timber and fishing industries... everything would have been run by the government," said Bill Moore, a logger from Tonasket, Wash. "The park would have been an out-and-out land grab by radical terrorists and the government." A logger within the ecosystem's borders, Moore believed he'd soon be on welfare if the park actually went through.

It is hard to pinpoint the actual roots and causes of the fright that ran so rampant. Most of these people hadn't taken the time to read or listen to the assurances of the Alliance. Their mistrust blinded any hopes for seeing positive motives.

"It's an utterly irrational mindset," Miles said. "[The park was simply a matter of trying to advocate better management of the region. That's it."

Moore said he had no reason to believe in any environmental preservation plans, saying that belief in preservation is like "believing in the tooth-fairy. They simply wanted to turn over control of something that belongs to the U.S. and that's just wrong."

"Things just got weirder as it went on," Friedman said. "The militia movement had been growing, the far right was organizing - all of that was a truck coming that nobody saw and we were standing in the middle of the road."

That truck came rolling into the Washington State Parks and Recreation Commission office when they received a call from "one irate, hostile and nasty citizen." The misinformed caller made reference to President Clinton issuing an executive order, "bypassing Congress," that would condemn citizen's private lands, evict people from their homes and block off streets in order to create an "eco-park."

The amount of miscommunication was bewildering to the organizers and forerunners of the proposal. Despite these challenges, the Alliance continued to push on.

They persisted with attempts of rational reasoning for the park, and continued to put their energy into getting it recognized for what it was. They collected endorsements from Governor Mike Lowry, as well as over 20 grassroots organizations, and gathered support from communities around the state. NWEA paid an independent polling organization to determine the level of support in Washington. The results came back 3 to 1 in favor of the park.

The proposal's eventual failure was not fully due to the people who preached conspiracy plans, but rather had to do with the change of Congress from Democratic to Republican in 1994.

"We figured the Democrats would continue in Congress," Miles said, "but then the Republicans swept into power and private property rights were a new issue."

"After the election, we knew the proposal actually didn't stand a chance in Congress," Friedman said. "We wanted to gain back some ground and put it on ice, so as not to leave it hanging with all the conspiratorial tones around it."

The right wing and Wise-Use opposition to the park may have done the proposal some good by publicizing the idea, but proponents plan better education the next time around to avoid the appearance of imposing a new world order in the process.

"The park remains a good idea," said Friedman. "It's needed to protect the ecosystem. When the time is right we'll pull the proposal off the shelf and try to make it happen. Its real substance is mandating better cooperation and integrating better policies across the border."

Considering that many parks have taken 10 to 20 years to become a reality, perhaps we'll see a North Cascades International Park.

If it happens, you can bet there will be a few people keeping their eyes to the sky, looking for the black U.N. helicopters.

*Shane Mountain Powell is an aspiring photographer and corporation dismantler with an environmental journalism major at Huxley.*
Imagine a place so green, flowers fall right out of the sky and even the lamp posts bloom. Where a colourful history is remembered in lovingly-restored heritage architecture and afternoon tea is still taken in the traditional and unhurried manner. Imagine a seacoast city alive with the romance of an era when tall ships moored alongside the wharf. Where the beauty of the Pacific Coast and the adventure of the great outdoors are within the city limits. Where whale-watching is more common than watching the clock, and golf is a year-round pastime. Imagine strolling under antique street lamps to catch the last glow of sunset over the harbour as the magical lights of the Parliament Buildings wink on.” The Place? Victoria, narrated by British Columbia Tourism.

Now imagine 20 million gallons of raw sewage being flushed into the Strait of Juan de Fuca each day from Victoria. Imagine nearby beaches closed due to unsightly fecal matter. Imagine shellfish that are often contaminated with human and industrial waste. Imagine condoms and human waste floating among the fish in marine waters. Imagine these events occurring less than 10 miles from U.S. waters. All of these images are a reality – thanks to the city of Victoria.

Federal laws mandate wastewater treatment in the U.S. Most treatment facilities in Washington state use secondary treatment to remove coliform bacteria, heavy metals and organic toxics. But more than half of the voters in Victoria rejected a referendum to build such a wastewater treatment facility in 1992.

Government officials in Victoria have had to endure numerous attacks by environmental groups, U.S. government officials, and some would-be tourists who boycott the city due to its unseemly toilet behavior. In the early 1990s Canadian officials quelled controversy by promising to mend their sullied ways. Government officials have since pointed to the high cost of a treatment facility, lack of land to place such an operation, and have argued that the Strait “naturally” does what a treatment facility would by flushing wastes to the Pacific Ocean.

In 1995, Frank Leonard, chairman of Capital Regional District, which administers Victoria’s sewage outfalls, was quoted in the Victoria Times as saying “Of all the things our governments have to spend hundreds of millions of dollars on, sewage treatment should be well down the list.”

While Bellingham has primary and secondary treatment, Victoria has “preliminary treatment.” Preliminary treatment consists of a corse screen that halts larger objects. Bellingham’s Post Point Pollution Control Plant includes preliminary screening and five additional processes. Bellingham treats around 11 million gallons of sewage per day, but the facility can accommodate up to 60 million.

Effluent from primary treatment flowed directly to Bellingham Bay before 1993. In that year
Bellingham entered the modern era by updating to secondary treatment at a cost of $55 million. "We have spent a lot of money in improvements over the years on this plant. There have been numerous upgrades but [adding secondary treatment] has had the most significant impact on water quality," explains 21-year plant veteran Dan Starcher.

At Post Point, wastewater is treated, chlorinated and then de-chlorinated before discharging into Bellingham Bay. Peg Wendling, Laboratory Analyst, casually boasts that "By law we are required to remove about 85 percent of [solids], and we remove about 95 percent or above."

Many claim that Victoria sewage does no discernible damage to the Strait of Juan de Fuca, others disagree. The People for Puget Sound, a non-profit organization dedicated to protecting the Sound, together with Save the Georgia Strait Alliance in Canada, produced a 1995 report on the sewage problem that assigns grades to selected wastewater treatment facilities throughout Washington and British Columbia. The two major outfalls of effluent in Victoria, Clover Point and Macaulay Point, both received whopping D grades.

While Victoria has done nothing to improve effluent disposal, cities on the U.S. side of the Strait have. Port Townsend and Port Angeles have spent more than $41 million upgrading to secondary treatment. British Columbia's minister of fisheries David Anderson recently told the Seattle Post-Intelligencer that "In some cities where it is not necessary, you have installed facilities at great expense."

Sewage does not only contain human wastes, but may house an array of toxic chemicals and metals from households and businesses. Toxics such as solvents, detergents, cleansers, inks, pesticides, paints, and numerous other products are dumped, flushed, and rinsed from our homes and businesses daily.

Mike Sato, Communications Director for People for Puget Sound, explained that "fecal matter goes away" at some point, but "organochlorines, heavy metals and toxins don't go away, they bioaccumulate."

According to the People for Puget Sound, "Toxic pollution from sewage and other sources has a cumulative effect on the entire food chain." Toxic chemicals bind to sediments and settle on the bottom of the Sound and Strait. "Flatfish, shellfish and other
bottom-dwelling creatures can be exposed to these toxic sediments and may develop liver and other tumors."

Derek Ellis, Professor Emeritus of Biology at the University of Victoria, has extensively studied the effects of effluent in the Strait off the shores of Victoria. He explains that, “screening stops material that has absorbed heavy metals and toxins.” He believes that modern screening techniques are comparable with primary treatment.

Bellingham’s plant, although modern, is not perfect in its treatment. It is extremely difficult to treat for inorganic materials. Some chemicals that Bellingham and Victoria residents dump down their drains will end up in our marine environment, despite treatment efforts.

Ellis points out that the “ultimate test is whether there is an effect or not.” In waters near the outfalls in Victoria, Ellis has found that “toxins are simply not detectable” in the water and the trace amounts of toxins and heavy metals found in sediment are localized and minimal.

While Canadian officials maintain that the Strait naturally treats sewage by flushing wastes to the Pacific Ocean, Sato doesn’t see it so simply. “It doesn’t always just flush out” he says. “When you go to the beach, you expect it to be clean.”

Sato does not simply point the finger at Victoria, but also blames treatment plants in Washington, among them Bremerton and Anacortes, which often experience sewage overflows. It follows the old adage: when you point your finger at others, three fingers are often pointing back at you.

Sato is certain that Victoria will build a treatment facility at some point, but urges “the longer one puts off building a sewage plant the more expensive it becomes.”

Ellis believes either political pressure from other cities having treatment facilities or evidence of negative environmental effects in the Strait could force Victoria to build a treatment plant.

It appears Canada already has the necessary regulation in place to force Victoria’s hand: the Fisheries Act, Canada’s most restrictive law against water pollution. It provides for penalties of up to $1 million for every day that “deleterious” materials are released into “waters frequented by fish.”

According to the People for Puget Sound, “Canadian courts have repeatedly found raw municipal sewage to be a ‘deleterious’ substance.” B.C. government policy states that all municipalities are to have a minimum of secondary sewage treatment, but no time limit has been imposed on local governments for pre-existing systems.

With U.S. waters less than 10 miles from Victoria’s sewage outfalls, one would expect conflict between the two nations. There are no irritable U.S. border guards to stop unwelcome wastewater from crossing the international boundary.

Victoria releases the equivalent of a full Exxon Valdez worth of raw sewage into the U.S.-Canadian waterway daily. The Canadian government might believe that the U.S. has no role in Canada’s decision on what it will dump, but it would appear that in a shared waterway the U.S. should have some leverage.

Jean Melious, Professor of International Environmental Policy at Western, explains that there are international treaties regarding the dumping of waste in internal bodies of water such as the Great Lakes, but not in the Strait. “Even when you have two wealthy, environmentally conscious nations, they don’t always follow the best practices,” she says.

Environmental laws enforced on only one side of the border have diminished influence, because shared ecosystems do not recognize political boundaries. Sato sums up who will suffer in the end: “There is a geopolitical boundary that the orcas don’t know, the salmon don’t know, the seabirds don’t know.”

Joe Ackerson aspires to enact positive social change throughout the world. He advocates the abolition of the sport utility vehicle.
Walking along the banks of the Nooksack River all is peaceful. The water is a cool forest green, flowing swiftly but silently over the rocky bottom. Evergreen trees tower overhead; a sense of wild peace is at hand.

But wait, something is wrong. Somewhere below is a faint screaming, an almost indecipherable sound. It goes unheard and unnoticed, but beneath these tranquil green waters the last Chinook salmon has just admitted defeat and died in the cold waters of the Nooksack River.

Could this happen here, where salmon were once so plentiful? Given the Northwest's devastation of local salmon populations, that fateful day may come, even sooner than we think. In Washington, Chinook salmon runs have dropped 80 percent during the last decade. Other species, such as the Coho, have fared even worse, dropping 90 percent.

For an area where the coastal towns used to enjoy fishing seasons that stretched over six months, and anglers could legally land over 100,000 salmon in a season, salmon have become eerily vacant from our waters. The Columbia River once boasted runs of over 15 million salmon, but now at best experiences only 250,000 non-hatchery returning fish during spawning season.

The reasons for the sad state of Northwest salmon are diverse: habitat loss and degradation, overfishing by both Canadian and U.S. commercial fishing fleets, hydroelectric dams, and the reliance on hatcheries have all contributed to edging salmon closer toward critical levels of near-extinction.

The current hatchery system, releasing millions of genetically deficient, disease-prone salmon into our waters every year, shares some of the blame. "We provide fish to be caught. We produce a fish that for all intents and purposes is supposed to be caught by commercial fishing boats," says Mark Kimball of the Washington State Fish and Wildlife Department (WSFW).

Our hatcheries are intended to help supplant wild salmon populations by providing an ample supply for fishermen. Through that process, wild populations should remain at healthy levels, but that is not
the case. The wild stocks are losing ground fast. Kimball said that in a large number of rivers around Washington as few as 30 to 40 wild fish are returning.

Hatcheries may do more harm than good, in fact. Hatchery fish cause a number of problems for wild salmon stocks, mainly in competition for food. Hatchery fish have a very easy life, raised in a controlled, sterile environment. Wild salmon, on the other hand, survive through natural selection – they survive by being the strongest of the lot. They are smarter, faster, and more resistant to disease.

"Hatchery-produced fish can pose a significant risk to the productivity and future survival of wild populations," states Mark Chilcote of the Oregon Fish and Wildlife Department. When hatchery fish enter the environment they often harm wild salmon by competing for food and spreading disease.

The WSFW reports that 250 million smolt were released from Washington's hatcheries in 1997; of those, 700,000 returned to the hatcheries to spawn. The rest most likely wound up in fishing nets. In the same year, the state spent $26 million on hatchery programs, amounting to a $26 million subsidy for the commercial fishing industry.

The logical question to ask is 'what is the intended goal of hatcheries?' Is it to restore the species' survival, or put salmon on people's plates? It appears the current hatchery system is ignoring the real problem – the wild salmon are dying. No substantial effort is being made to restore the wild salmon, instead the emphasis is on subsidizing an already slumping commercial fishing industry.

The recent proposal by the National Marine Fisheries Service (NMFS) to list the Puget Sound Chinook salmon as threatened under the Endangered Species Act has brought these issues to the forefront. State and local agencies are scrambling to write up recovery plans for salmon to avoid the possible listing. But NMFS officials have said a delay is very unlikely, and the listing will most likely go through in March of 1999. Local governments have tried to forestall federal intervention because it could have potentially devastating impacts on development, business and water issues.

Salmon in Washington are at a critical point: focus now should be on rebuilding salmon by formulating an ecosystem-based approach, with a goal of maximizing smolt survival and adequate adult returns to assure salmon recovery. By the same token, rebuilding must take place for a sustainable fishery to satisfy the demands of commercial and sport fishermen as well as tribal groups.

The groups involved in the salmon debate face some fundamental problems in their task; mainly the lack of any common ground. The WSFW's "official" numbers on salmon populations are often challenged by involved groups. Save Our Wild Salmon, a salmon advocacy group, disagrees with NMFS's assessment of salmon populations, calling the numbers "lower than a more environmental group." No progress can be made toward saving salmon until common ground, in the form of agreed-upon numbers, is found. Time is spent arguing about numbers instead of dealing with the actual problem.

But recognition of the problem is not lacking. NMFS, the organization involved in making salmon policy, recently acknowledged that hatcheries are harmful. In a report the agency states, "re-evaluation of current hatcheries is essential to salmon survival."

On the other side of the border, salmon in Canadian waters are dealt with differently. In salmon in the U.S. Canada's approach, while supporting commercial fishing, places an added emphasis on species conservation. David Anderson, The Minister of Fisheries and Oceans for Canada, wrote, "Conservation is a responsibility that rests with every one of us – we all have to play a role . . . Without good habitat to provide a nurturing environment for all stages of a salmon's life, these fish cannot be sustained."

Canada has a potentially strong force in helping preserve salmon in the Fisheries Act, which pro-
hibits the "harmful alteration, disruption or destruction of fish habitat." The Canadian government, under the Fisheries Act, has the power to call for redesign or relocation of a project that could harm salmon habitat. If damage cannot be avoided, compensation for any loss of habitat is required through restoration or creation of new habitat.

The Fisheries Act holds great potential, but unfortunately it is not being enforced. In the Fall 1997 issue of *Northwest Conservation*, an article on Canadian logging stated that "83 percent of logging operations that span waterways have clearcuts right to the banks without any streamside habitat protection." Canada's holistic approach to salmon restoration is admirable, but actions need to reflect their stated commitments to salmon health.

Complicating the salmon situation, and directing attention away from replenishing wild stocks, are the long-running and protracted salmon treaty problems between the U.S. and Canada.

The Pacific Salmon Treaty was signed by the two countries in 1985, with both parties agreeing that each should be entitled to a catch proportionate to the numbers of fish spawning in its own rivers.

But equity has been difficult to achieve, and since 1993 the two countries have been unable to implement the Treaty and agree on how to share the salmon. In the meantime, fishing interests have grabbed what they can, contributing to the present-day crisis.

While the Treaty allows for boats from each country to catch some fish bound for the other country's rivers, both sides have cried foul for years, complaining that the other side is taking too much of their fish. In the U.S., concerns are that Washington and Oregon runs have been caught in large numbers by Canadian boats near Vancouver Island. Some of the loudest protests have come from Canada, which claims that Alaskan boats are overharvesting fish returning to Canadian streams.

These protests climaxd in an ugly fashion last summer, with Canadian fishing boats blockading an Alaska state ferry in Prince Rupert. B.C. Alaska canceled service there and filed suit against the fishermen for damages.

The salmon war has since escalated, with B.C. Premier Glen Clark filing suit last September against the U.S. for allegedly violating the Treaty. The lawsuit also asked for upwards of $525 million in damages, for perceived losses during previous fishing seasons.

Negotiations between the two countries have since begun anew, with hopes of reaching an agreement before the upcoming fishing season. Putting past transgressions behind them, the two sides have begun talks, pushing for short-term, interim agreements for this fishing season. They are conceding the difficulty of agreeing on long-term arrangements.

“Our plan is to have interim agreements in place for the coming season,” said Donald McRae, Canada's chief negotiator, to the *Tacoma News Tribune*. "The negotiation of long-term arrangements, obviously, is a very complex and difficult matter, and we're proceeding on a step-by-step basis.”

But not everyone is happy with the renewed talks between the two nations. B.C. is angry at the Canadian federal government for not taking a harder line. "It is a surrender to the U.S. before we even start negotiating," said Premier Clark.

While there appears there is little time to hammer out a long-term solution, it remains the responsibility of the two nations to keep the communication lines open. The actions of the U.S. and Canada will play deciding roles in whether or not salmon survive in the Northwest. We can only hope that we have the leadership, and the vision, to make sure the day never comes when the last salmon swims and dies in the Nooksack River.

Robert Bart, a freshman from New York, is an avid kayaker.
the uncertain future of organics

by Sarah Ruether

Every inch of my body ached. My legs were incredibly sore and the sun had fried my skin to a crisp, making driving home an exhausting task. My biking trip in the San Juan Islands had taken its toll on me. I saw a sign on the side of the road advertising fresh, local organic strawberries. My survival instincts for nourishment kicked in, giving me the strength to muster up all the energy left in my body, and I stopped at the small produce stand on the side of the road.

As the sun’s rays pounded down on my raw, tender skin I stepped into the shade of the fruit stand for relief. I stood opposite the young girl running the fruit stand, who stood in the sun, soaking up each ray with satisfaction in her halter top. I asked the young girl where the strawberries were grown, and she said that they were grown locally in Skagit Valley.

The strawberries were incredibly tiny, smaller than I was used to finding in the grocery store. A few of them had bruises and discoloration, but it seemed like a good deal so I bought a flat. As I pulled out of the fruit stand I popped a strawberry in my mouth. Even with the fatigue, sunburn, and aching muscles, I gasped in pleasure at the amazing sweetness of the juicy morsel.

My previously slow, exhausting drive home soon became a gluttonous strawberry feast. I could not control myself and almost finished off half a flat by the time I returned to Bellingham. As I binged, I began thinking how conditioned I am to pesticide-laden, out-of-season produce shipped in from foreign countries and large agribusinesses. The experience of organic produce was heavenly in comparison the usual taste of strawberries. It made me wonder: what are some of the environmental and health implications of organic produce, and where and how can I get more of this sinfully good organic produce?

The answer to my question was not what I had hoped. Sadly, the future of organic food is in grave danger. Both the United States and Canada currently have proposals to make organic certification a responsibility of the national government. The future of organic produce could change radically if either country passes their proposed legislation. Canada exports most of its raw organic produce to the U.S., but interestingly most of the processed organic food that Canada consumes comes from U.S. makers. With free trade, organic food knows no boundaries, so regulations on either side of the border will affect us all.

In Canada there was a movement in 1990 to get a national organic standard, but after many rewrites by industry and other special interest groups no consensus was reached and the proposed national standards died. The organic community in Canada, however, did not give up on national organic standards. Instead they formed a board made up of various representatives from the organic community. The board is currently working on a new draft of proposed national organic standards for Canada.

In the United States, the organic community began to form in the late seventies, quickly growing
in leaps and bounds. Many in organics wanted some regulation to direct future organic food production and asked the USDA and the federal government to help with the certification process.

In 1990, the food production act was passed, stating that the federal government was required to develop a federal standard to define "organic."

The final result is the currently proposed bill in Congress. If this legislation passes, some fear that the certified organic label will become meaningless. The bill allows genetically engineered foods, irradiated foods, intensive confinement of farm animals, rendered animal parts in feed, and the use of toxic sludge spread over farmlands and pastures.

The new standards could potentially destroy the credibility of the organic food industry in the United States, and negatively affect the export and trade of organic foods abroad.

When the organic community was growing in the eighties, many thought that it needed the government to step in and regulate growth. Brad Smith, of the Bellingham Community Food Co-op, disagrees: "The ideal would be no government intervention in organic standards. Organic foods are for the specific community of people that want that kind of quality in the food they eat. Organic standards then, are worthless if they don’t satisfy this community."

Gigi Berrardi, a professor at Western specializing in agriculture issues, said "the proposed legislation is highly contested, in terms of pesticide use and pesticide certification. The USDA has extended the comment period because there has been so much controversy."

After a hearing on the proposed rules, a Sierra Club member said, "Every single person who spoke was strongly opposed to the USDA's proposed rules. In my 18 years dealing with state and federal regulatory agencies, I have never witnessed such lopsided testimony – 100 percent – by the public for or against any proposed rules."

Canadians are also concerned about the U.S.-proposed organic certifications because they will be greatly affected by the legislation's outcome. Numerous Canadians have sent in comments to the USDA voicing their concerns about the proposed legislation, noted Ann Macy of Canadian Organic Growers.

There is a lot at stake in these proposed organic certification standards. The National Association of State Departments of Agriculture (NASDA) said that the EPA should make a greater effort to put American producers on a level playing field with their Canadian counterparts in regard to pesticide regulations. NASDA approved a resolution submitted by North Dakota Commissioner of Agriculture Roger Johnson, calling for the harmonization of pesticide regulations between the two countries.

"More efforts must be focused on establishing tolerances for pesticides registered in Canada, but not in the United States. In the meantime, we should not be allowing imports of Canadian commodities that don’t meet our pesticide requirements," said Johnson.

Canadian or American, if you eat organic food and are concerned about the dangers of chemically intensive agriculture, or you just like the taste of fresh organic produce, then you should be interested in how the government shapes these proposed organic certification standards. There is still time to act.

Sarah Ruether, a graduating senior, thinks a healthy life includes friends, family, red shoes and lots of laughter.
blurring the boundaries
Highway 542 winds through the rural spine of the Sumas Mountains. There are two clouds in the sky, one somewhere over the Canadian Pacific and another against Mount Baker, shielding the white crown from my view. I am journeying east into the Mount Baker-Snoqualmie National Forest tracing a state highway map. I want to see firsthand what I have heard about recently — animal sightings.

Sightings are not uncommon for the North Cascades wilderness, but these particular animals have been absent from United States territory for years. These are transplants from Canada, where their habitat is managed quite different than if they lived in the U.S. There are sightings of the gray wolf as far south as Everett. Grizzly bears, thought to be extinct in the Colorado Rockies and northward, have been sighted in these mountains — but so has Bigfoot. I don’t know which I would rather run into.

High-tech imaging satellites are mapping the current habitats, or home ranges, of these populations and more than 200 others. Breakthrough computer database programs, such as Arc/Info’s Geographic Information Systems (GIS) or PCI remote sensing software, allow geographers and wildlife biologists alike to uncover subtle patterns in species’ behavior — patterns never proven to be so interconnected and precise until now. From this information, we can rethink previous theories of animal behavior, characteristic needs, and the effects of habitat destruction.

But what happens when the new technology unveils patterns that traverse public forest onto private land? Or cross international borders? Scientists and environmental activists are calling for re-zoning animal habitat ranges into ecological-based regions, known as eco-regions, primarily based on satellite imagery data. The U.S. government drew the boundaries that appear on my highway map at a time when the prevailing interests were tenors of evolving capitalism. The needs of the species hemmed inside those lines were only trivial by comparison.
Various interested parties, on both sides of the Canada-U.S. border, do not accept the notion of eco-regions. But sovereignty issues fundamentally tie their hands — the rights of the property owner, as well as clashing resource management policies. Sandwiched in between the native species who do not know what a political border is, nor do they care.

Eyes in the Skies and on the Ground

Sitting down with two Master's candidates of Huxley College, I hope to shed some light on the argument with re-zoning and the use of technology, which is helping to reinforce eco-region proposals. Bill Richards is a landscape ecologist researching home range dispersal patterns of the infamous spotted owl using GIS technology and satellite imagery. Andy Boyce uses the same technology to find potential habitat for the Marbled Murrelet.

The lab is spacious and orderly; high ceiling, cement floor. The radio plays in the background competing with the hum of fans. The walls of the lab are plastered with colorful satellite images of the Earth.

Satellites orbiting the Earth are at the heart in this new wave of meshed science and geography. Remote sensing satellite surveys create comprehensive maps of the Earth, while high-tech database software combines a huge number of variables and data, overlaying them upon the satellite image. Taken in conjunction, these maps extrapolate patterns of animal behavior and environmental conditions in the forests and deserts. However, this is only a sliver of what the technology is capable of producing.

This cultivation of information is forcing us to consider more options in resource planning. "Remote sensing is significant in planning the best wilderness management policies, and paramount to its success — the maps are readily understandable by the lay-person," said Andy Bach, professor of Geography at Huxley College. "There is intense demand from miners, car makers, urban planners, meteorologists and government agencies for these pictures."

In the future, we will see increased resolution in remote sensing technology. Currently satellites can dissect terra firma into 25 square meter blocks, or about 269 square feet. Soon resolution will improve: 5-meter blocks will become 1-meter blocks.

"The reflection from a deciduous leaf is different than the reflection from a coniferous needle," Boyce said, explaining how this technology will help define eco-regions.

Not only can the images penetrate the Amazon, but Antarctica and even the oceans — all without expensive and laborious fieldwork.

Through technology we can paint clearer pictures of the world and affirm the interdependence of species, prevent habitat destruction and examine home-range dispersals.

The Best Lines on a Map are the Thinnest

I cross the line into the national forest, heading towards the Mount Baker Ski Area. I pass a sign saying it has closed for the season. The ranger station at Glacier was dark also. Its Lincoln-esque cabin sits almost on the forest boundary at mile 36. At mile 38, I see a deer, tan and speckled in white, on a pullout.

At mile 49, snow adorned the hillsides.

At mile 51 two small waterfalls babbled, dabling wineglass-clear runoff onto slate stones divorced from the hill, lying inept and pristine on the shoulder.

The road hugs the mountainside.

In a pull-off, I see a sign declaring "Area Closed to Equipment to Protect Wildlife Habitat — Open to All Other Travel." I smile, seeing proof of changes in habitat management practices. I retrace my tire tracks back down the mountain, finally stopping near Nooksack Falls at the Goat Mountain trailhead.

I hike in from the trailhead observing everything; not just anticipating signs of bear and wolf but all kinds of life. Being alone in the middle of a forest re-sketches the boundaries of urban comfort.
I see tracks – all different kinds – and scribble down their patterns in my notebook. There are elk prints, or maybe deer, in the mud of an intermittent stream. One gouge looks like a cougar’s paw. It is becoming clearer to me that I am in their habitat, a visitor.

**Property Versus Priority**

The crux of the eco-region debate lies in the sovereignty issue. In the United States, forest boundaries are encircled by private lands with loggers, ranchers, and recreation entrepreneurs competing for permits to use public lands. Canada has no nationwide Endangered Species policy, although Canadians are as green as their counterparts. “Most Canadian land is government owned, called Crown land, which is leased to timber companies and ranchers,” Bach said.

The differences in practice also reflect the difference in latitudes. Much of Canada is uninhabited by urban populations, especially North of Edmonton, on the 54th parallel. Much of the country is boreal forest and tundra, so it would make sense that dissimilar policies contradict. Furthermore, as Bach points out, “Canada competes with the United States in timber, fishing and mining.” In part, re-zoning will affect many interests.

“You can’t just put down static lines down on the landscape when you’re talking about such a dynamic system,” Boyce said.

“That’s the problem with putting political boundaries on [the landscape or a map],” Richards adds.

Some species, like wolves and grizzlies, have gigantic home ranges; they need hundreds of acres of continuous wild lands to maintain a viable population. For these animals to survive they need a place of their own, widely dispersed from each other.

“The important thing out there is where the habitat is located – how it’s laid out on the landscape. If habitat is fragmented and separated from each other, it decreases its usefulness. But if it’s in one big block, then species are able to move around and sustain a viable population,” Richards says.

The population he is addressing is the amount of actual animals who can interbreed in one area, like a pack of wolves. A viable population is the minimum number of females needed for a population to sustain progeny. If there are too few females, then the species is doomed unless there is a dramatic change in the environment.

Reintroduction of wolves into territory, like Yellowstone and the Canadian Rockies, is one way humans are trying to sustain those threatened populations.

East of Seattle, throughout the I-90 corridor, there is a continuous greenway where animals can move. “Different species have different habitat requirements,” Boyce explains, “and they really don’t conform with each other. The difficulty is often trying to manage for that species’ complexity in a complex landscape where public and private ownership patterns have already been established.”

**Be Verwy, Verwy Quiet**

My feet softly scrape the soil. I wonder if those satellites can see me even under the canopy of pine needles, fir boughs and vine maples.

The silence is broken by a birdcall. By surveying land from space, remotely, we can decrease the amount of disturbance on natural habitats. And through speedy software we can deduce patterns in the environment, both in cities and in the woods, which allow us all to be better informed about the world.

Through this technology, we can explore previously wild worlds while they still maintain their uncivil wildness, allowing us to see exactly how civilized non-humans are.

Matt Collins is a naturalist with an Environmental Planning major who has backpacked extensively in Washington and Alaska. He is founder of the Church of Matism.
Canada

United States