

Wolves of Labrador

May 31, 2005

Act I *Intro Labrador's Wolves*

<i>Wolf in water</i>	Love them or hate them, few can deny the power of the wolf.
<i>Pup</i>	As symbols of wilderness we adore them.
<i>Wolves at carcass</i>	But like shadows, wolves also invade our nightmares as man-eaters and reckless killers.
<i>Single wolf feeds</i>	Somewhere between the fear and the romance lies the truth of the wolf, creatures surviving the only way they can—one kill at a time.
<i>Wolf stalks</i>	On Canada's East Coast, wolves hunt/stalk the largest herd of caribou in the world.
<i>Man walks; herd and wolf</i>	Secretive and elusive, the challenge to biologists and camera crew alike is to find and study these caribou hunters: the wolves of Labrador/ the Labrador wolf.
Title	The Wolves of Labrador
<i>Slo mo wolf</i>	<i>Canis lupus</i> : the gray wolf.
Graphic to come showing shrinking range	Once the most widespread carnivore in the world, habitat loss and relentless predator controls pushed wolves to a fraction of their former range, deep into wilderness areas.
A few alternatives for this section are found at the end	Gone are the wolves from Japan, reduced in the Middle East and nearly exterminated in Western Europe. In Mexico and the U.S., wolves lost 95% of their range.
This section on genetics will be reduced	Over a Century ago, wolves in North America once carried a wide range of unique genes, showing a genetic diversity that is nature's insurance against extinction. But as their range shrank, so too did their genetic heritage. Research shows historic populations had more than twice the genetic diversity of present day wolves. In less than one hundred years, wolves lost more than half of their gene supply.

	<p>While North America maintains almost three-quarters of the world's wolf population, it's also lost some unique races.</p> <p>The Mexican wolf clings to existence, while Alaska's Kenai Peninsula wolf, <u>reportedly</u> one of the world's largest, disappeared. As did the buffalo hunters, the wolves of the Great Plains. The Newfoundland wolf also went down the path to extinction.</p>
<i>White wolf</i>	A large white animal, the Newfoundland wolf existed only on the island of Newfoundland.
<i>Wolf stalks</i>	For thousands of years it survived, hunting the island's caribou. By 1930, the Newfoundland wolf was extinct, its genetic contribution lost forever.
<i>Caribou, LS wolf</i>	While predator controls helped push their numbers down, it's more likely their ties to the island's dwindling caribou sealed their fate. Lack of caribou may have killed the Newfoundland wolf.
<i>Map</i>	It is believed <u>this wolf's</u> ancestors came from nearby Labrador, following caribou to the island of Newfoundland.
<i>Caribou</i>	But while the island's caribou population faltered, Labrador's has grown. Today, close to a million caribou wander throughout the region of Labrador. The George River herd—the largest herd of caribou in the world.
<i>ZI wolf</i>	And wherever <u>they</u> roam, you'll find the caribou hunters.
<i>CU wolf</i>	<i>Canis lupus labradorius</i> —the Labrador wolf.
<i>Wolf walks</i>	A sub-species of the gray wolf, this medium sized wolf ranges in colour from dark gray to white.
<i>Wolves on tundra</i>	As they still occupy 95% of their historic range, they're one of the few intact populations left in the world—an important storehouse of unique wolf genes.
<i>Wolf trots; mtn aerals</i>	Little else is known about these wolves as they exist in a treacherous and inhospitable land, making them the least studied wolves in the world.
<i>Helicopter</i>	<i>"Oh look, there's wolves"</i>
<i>Crew; aerals</i>	To gain a better understanding of these wolves, our camera crew, teamed with biologists and experienced guides, will embark on a <u>three-</u> year journey; through Labrador's rugged terrain on land, along its

<p><i>LS wolf in rocks; aerial wolf running</i></p>	<p>jagged coast by boat, and covering it's vast expanse from the air. OR To gain a better understanding of these wolves, our camera crew, teamed with biologists and experienced guides, will embark on a three-year journey by land, sea, and air, throughout Labrador's rugged terrain.</p> <p>No one really knows how many there are, or their full impacts on caribou and the world around them.</p>
<p><i>Wolf running; helicopter; various shots</i></p> <p><i>Biologist chases wolf,</i></p> <p><i>Measures</i></p> <p><i>Weighs</i></p> <p><i>Biologists check wolf's teeth</i></p> <p><i>Checks feet</i></p> <p><i>Rob collars wolf</i></p> <p><i>Biologists finish collaring</i></p>	<p>To fill the research gap, Labrador's biologists will need to collar several wolves.</p> <p><i>To initiate the project was a little bit difficult. We had to use helicopters and go out into these areas where we knew there were wolves present. Of course we didn't know where they would be on any particular day.</i></p> <p><i>Pick days with good lighting conditions, with recent snow, we can actually pick up their tracks and actually follow the tracks until we come up to the animal themselves</i></p> <p>(Various comments as biologist attempts to dart wolf) Information gathered reveals the condition of the animal.</p> <p><i>29...all these wolves are almost exactly the same size, I think they've all been 29.</i></p> <p>Everything from weight to tooth wear tells of the wolf's life.</p> <p><i>She's got some wear on her teeth, they're a little bit yellow...this one's loose actually, she's missing the one next to it...</i></p> <p><i>Hairy feet...see how the toes spread a considerable difference, and you can see how they can get around in that deep snow.</i></p> <p><i>This mature female is probably one of the oldest members of the pack.</i></p> <p><i>This is a VHF radio collar beacon. And we can follow this animal from an aircraft with a radio receiver on board.</i></p> <p><i>certainly we are able to estimate the total range, the packs that these animals are associated with. We are able to determine the survival rates of these animals through time. And depending on the types of radios deployed, you're sometimes able to estimate predation rates.</i></p> <p><i>She's very healthy, appears to be a mature female, and by the looks of things may be pregnant. If that's the case then we assume we have the alpha female of the pack, which is great, because if so we may be able to find a den site and get some really interesting information from the</i></p>

<p><i>aerial</i></p>	<p><i>animal.</i></p> <p><i>(Rebecca) Well one of the reasons we're studying wolves right is we're trying to get a more complete idea of predator-prey relationships in this area. There hasn't been recent research...allow us to fill in missing details. Radio collars is effective in Labrador...huge land mass...hopefully we'll have another opportunity to get more collars on...keep tabs on it and figure out what parts of the of the area they're using. One of the problems with telemetry from helicopters, in heavily wooded areas can't get a good look, not able to get a lot of information that way.</i></p> <p><i>Usually wherever there are George River caribou there are probably wolves in the area. The wolves are known to migrate with them to a point, most don't migrate past the treeline.</i></p>
<p><i>Helicopter; crew walking</i></p> <p><i>Caribou in snow</i></p> <p><i>Caribou in snow</i></p> <p><i>Storm scenics; Levi sawing wood</i></p>	<p>While the biologists continue their research from the air, our camera crew begins their own search for wolves on the ground.</p> <p>There's only one sure way to find them—follow the caribou.</p> <p>In winter, the massive George River herd spends up to six months wandering the boreal forest and the edge of the treeline.</p> <p>It won't be easy trying to follow them. Labrador's long, harsh winters take a certain kind of knowledge to survive—one earned through experience.</p>
<p><i>Levi carrying wood; cameraman</i></p> <p><i>Levi scoping</i></p> <p>All of Levi's material will be subtitled</p> <p><i>Levi walks; pan scenic</i></p> <p><i>Wolf in snow; CU Levi</i></p>	<p>This is the kind of place only someone born here truly understands.</p> <p>There's few better than guide Levi Nochasak to take our crew into what can be one of the meanest places on earth.</p> <p>This is his backyard. He knows the land, and its creatures.</p> <p><i>Well animals are smarter, they have more sensitive smell, hearing, than humans. But in my case, I've been deaf most of my life, so I can see distance rather than hear. But my father teach me how much he knows, he's also deaf, but he is highly skilled and this is what I learned from him.</i></p> <p>Levi's exceptional observational skills and knowledge of the land will guide our crew in search of wolves through the wilds of Labrador.</p> <p><i>Well, I see most of the wolves between Nain and Hebron, in summer, winter. These mountains here in the background, toward north,</i></p>

<i>snowmobiles</i>	<p><i>northeast, is a route, it's where most of the caribou are. Eventually, there has to be wolves behind them.</i></p> <p>Levi's route will take the crew along the treeline north to the coast and search for wolves at the edge of the frozen sea.</p>
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Act II

<i>map</i>	<p>The search for wolves begins from Nain, Labrador's most northern community. From here, they follow the coast north on land and frozen sea, with only their snow machines and Levi's experience to rely on.</p> <p><i>Most of the time I travel from Nain to Hebron, we just bump into polar bear. Nothing but polar bear place, it's access to open edge water, edge sea ice.</i></p>
<i>Skidoo</i>	The sea ice poses a greater threat than any bear.
<i>Ice moves</i>	What seems like a solid sheet of ice becomes a moving platform that changes with the tides.
<i>Skidoos</i>	Hit a weak spot, and you crash into the ocean. OR Hit a weak spot and risk death in the cold ocean below.
<i>Cabins</i>	Our crew will spend ten weeks searching the coastline, using several cabins along the way as base camps. They decide to split up to widen the search area for any signs of wolves.
<i>AM walking away</i>	Hundreds of islands lie near the coast, enclosed by ice. Here, they find tracks leading out onto the frozen sea.
<i>Men point; pan scenic; tilt up tracks</i>	
<i>Skidoo; pan to carcass</i>	For days our crew follows the tracks, but always finds themselves a step behind.
<i>Carcass</i>	The tracks eventually lead to a fresh kill, cleaned out and abandoned by the wolves.
<i>Levi at carcass</i>	<i>It was an easy kill. There's quite a bit leftover there yet.</i>
<i>Carcasses</i>	The success of the pack lies clear with new kills found almost daily.
<i>Pan bloody carcass;</i>	The pack leaves behind a trail of carnage that never goes to waste. OR But the trail of carnage the pack leaves behind never goes to waste.
<i>Arctic fox; red fox</i>	Their smaller cousins, the red fox and the arctic fox, rely on old wolf kills to get them through the winter.

<p><i>Two red foxes fight</i></p> <p><i>Red fox</i></p> <p><i>Arctic foxes, Dead fox</i></p> <p><i>Red fox eats/looks</i></p>	<p>The foxes compete among themselves for food.</p> <p>The red fox now owns the wolf's old title of most widespread carnivore in the world. It's even expanding its range north into the arctic fox's territory.</p> <p>While they rely on the scraps wolves leave behind, it's still dangerous to be a fox in wolf territory.</p> <p>A wise fox keeps its distance from the only top dog. <i>(sound of wolf howling)</i></p>
<p><i>Pan scenic to Levi w/binos</i></p> <p><i>Pack; pup rolls down hill</i></p> <p><i>AM setting up blind</i></p> <p><i>foxes; wolf walking</i></p> <p><i>wolf approaches carcass</i></p> <p><i>Wolf feeds; pack on hillside; wolf walks</i></p>	<p>Levi is the first to spot a pack of wolves</p> <p>As wolves can easily travel 50 kilometers in a single day, the challenge now is to simply keep up with them.</p> <p>With wolves in the area, the film crew sets up a blind, in hopes the pack will return to their latest kill.</p> <p>Unfortunately, there's not much left of the carcass. It only draws one member of the pack.</p> <p>This could be a subordinate wolf, usually the last to feed.</p> <p>With the carcass well picked over, it doesn't stay long and quickly rejoins the pack resting on the hillside.</p>
<p><i>Levi scoping; carcass</i></p> <p><i>Pan seal carcass</i></p> <p><i>Polar bear; wolf; caribou</i></p> <p><i>Caribou on ice</i></p>	<p>Wolves seem to be drawn to the coast, making most of their kills out in the open on the sea ice. OR The coast seems to attract the wolves. Most of the kills have been found on the open sea ice.</p> <p>Even the occasional seal falls prey to wolves.</p> <p>Still, it's difficult for wolves to hunt seals, as they're wary of any movement.</p> <p><i>This is a good spot. Every year, they know this, they come back next year, and come back again next year. I recognize the trail. It's a shortcut on the sea ice.</i></p> <p>While polar bears and seals thrive on the ice, wolves also patrol its edges, as they know caribou are vulnerable out on the open ice.</p> <p>Caribou use the sea ice as a bridge to nearby islands they couldn't reach in summer.</p>

<i>Melt;</i>	But when the spring thaw slowly breaks winter’s hold on the land, caribou lose their bridge to the islands.
<i>caribou in water</i>	The growing light and warming days stirs the caribou to renew their annual journey.
<i>caribou move</i>	Leaving the <u>wintering grounds</u> behind them, they head north, towards the great expanse of the barren-lands. To follow the wolves and caribou, the film crew will have to change their tactics—a new season has begun.

Act III

<i>Map; crew in boat</i>	The search for wolves continues north along the coast—this time by boat.
<i>Henry steering boat</i>	Few know Labrador’s rugged coast better than Henry Webb, whose experience is needed for safe passage through the icy <u>waters of the</u> Labrador Sea.
<i>Rocky hills</i>	Their journey mirrors the caribou’s migration north.
<i>Map; aerials</i>	From wintering grounds in the south to the calving grounds in the north, the George River herd’s <u>range</u> spans an area the size of Great Britain, taking them through some of the most demanding terrain Labrador has to offer.
<i>Crew on boat</i>	Plotting their course carefully, they search the coastline where ancient rock meets the sea.
<i>Fiords</i> <i>Caribou filing</i>	They’ll search the many fiords that stretch for kilometers inland as they follow the movements of caribou, migrating along trails used for generations.
<i>Herd crosses</i> <i>Wolf</i>	These caribou may travel up to 6000 kilometers in a single year. Sooner or later, they will cross paths with wolves.
<i>Wolf on rocks; chases</i> <i>caribou</i>	In this rocky terrain, wolves have the advantage.
<i>Caribou move down</i> <i>hill, enter river</i>	The <u>river</u> brings safety to the caribou; they are as swift in water as they are on land.
<i>Herd swimming</i>	Hollow hairs keep them afloat while their wide hooves act as paddles,

	making them strong swimmers. Even the calves take to it easily.
<i>Calf walks up hill; herd</i>	In its first month of life, a calf may have already traveled 200 kilometers following its mother.
<i>Tired calf</i>	, the long journey proves too much for some. Exhausted, this calf can't take another step.
<i>Cow calls; calf lies down</i>	Desperately, the cow urges the calf on...But it needs to rest.
<i>Herd moves</i>	Constant movement defines a caribou's life.
<i>Calf stands, herd moves</i>	Leaving the lost and weakened calves behind, the herd presses on, south into the barren-lands.
<i>Cavles; wolf stalks</i>	If <u>these calves</u> can't find their mothers, they'll either starve...or come face to face with wolves.
<i>wolf scares away cow</i>	The drive to stay with the herd is strong, and forces most cows to abandon the weakened calves to their fate.
<i>wolf stalks; calf wolf chases calf</i>	A calf's misfortune is a wolf's gain.
<i>LS herd and wolf</i>	Even with their endless movements, the herd cannot escape the wolves, as they continue moving south, deep into Labrador's interior.
<i>Wolf stands, cam focuses; LS wolf</i>	Wolves are in their prime out here in the barrens, where they're camouflaged to blend into their surroundings—virtually invisible until they move.
<i>Caribou and wolf</i>	No matter where they go, the George River herd's constant companion trails behind them—a dark shadow threatening to strike.
<i>Limping bull</i>	It seems the wolves don't need to hunt in packs here, as they're bound to find a victim they can take down on their own. It's just a matter of finding one...and a little luck in catching it.
<i>Wolf following caribou</i>	Sooner or later, wolves will succeed. It's only a matter of time.

Act IV

<i>Herd passes cam</i>	The George River herd's migration continues south across Labrador's desolate barren-lands.
<i>LS herd; helicopter</i>	With the herd spreading out and moving quickly, our camera crew decides to fly ahead of the mass.

<i>Aerial; interior helicopter</i>	They know of a place where every caribou for kilometers around must pass.
<i>winding river</i>	Not all rivers are easy to cross. Over time, moving waters carve deep paths into the rock, creating natural barriers.
<i>canyon scenic (picture will change)</i>	A canyon lies in the caribou's path, and this is one of the few safe places to cross.
<i>People, helicopter</i>	Here, the crew will set up camp and wait.
<i>Scenics; wolf</i>	For generations, caribou have used this crossing. And used by wolves for just as long.
<i>LS wolf trots</i>	In such a meager landscape, these wolves would need to cover a large territory just to survive. Packs that hunt barren-ground caribou have the largest <u>home ranges</u> of all wolves.
<i>Wolf howls</i>	With such vast territories, communication between wolves becomes even more important.
<i>MLS wolf sniffs ground</i>	Howling keeps them in touch, but scent also plays a major role in a wolf's life.
<i>Young wolf rolls</i>	They use scent to mark territories. <u>But when they find a smell they really like, they roll in it.</u>
<i>Wolf rolls</i>	It could be a way to gain status in the pack...or it could just be they find it simply irresistible.
<i>Wolf trots, looks at cam</i>	In summer when there's no caribou in the area, they don't need the pack as much. They spread out, surviving on lemmings, voles, ptarmigan, and anything else they can find on the tundra.
<i>Wolves watch on hilltop</i>	For days the wolves scan the horizon, as if they're anticipating the caribou.
<i>LS herd coming</i>	Finally, the first wave of caribou arrives.
<i>Caribou in valley</i>	Like a funnel, the break in the canyon wall channels the entire herd through the valley.
<i>Caribou walk in river</i>	As this is the only place to cross for many kilometers, the bottleneck it creates for the herd makes it easier for the wolves.

<i>Caribou runs</i>	The caribou hesitate. They must know the danger this valley brings.
<i>Wolf; caribou</i>	The wolf manages to split the herd.
<i>Caribou swim</i>	When they take to water, the wolf is in no position to follow.
<i>Bulls on land</i>	The bulls look healthy and strong. Too much work and dangerous to hunt.
<i>Wolf stops, looks</i>	While this wolf failed on its first attempt, there will be <u>other</u> opportunities.
<i>LS caribou file through river</i>	As long as caribou continue to pass, the wolves will always get another chance. It will take weeks for tens of thousands of animals to <u>clear the valley</u> .
<i>LS caribou pouring down hillside</i>	At the migration's peak, they will cross non-stop, day and night.
<i>Wolf sneaking up on caribou</i>	Throughout time, the strategy for the hunt remains the same—use any means to get as close as possible before launching the attack.
<i>MLS moulting wolf</i>	The wind works against the wolf's attempt, blowing its scent towards the caribou.
<i>Another wolf stalks</i>	But where one wolf fails, another may succeed.
<i>Wolf stalks; bulls cross</i>	Undoubtedly, there will be caribou injured and weakened from the journey.
<i>Various wolf chases Wolf at river's edge</i>	The window of opportunity for these wolves lasts a few weeks before the final caribou passes by.
<i>Herd moves past crew, tent</i>	While the caribou complete their yearly cycle as they move back to the forest, the journey for our filmmakers comes to a bittersweet end.
<i>Wolf feeds behind rock; in water</i>	While it's clear the wolves were successful in hunting these caribou, with signs of fresh kills all around, the film crew never managed to capture a complete hunt on film.
<i>Slo mo moulting wolf; LS wolf chasing herds</i>	So secretive and wary are these wild wolves, that after 300 days in the field with over 3000 hours of observation, the actual kill still managed to elude the filmmakers.
	But they did find that these wolves of Labrador truly are superb caribou

<p><i>Wolf feeds on fresh meat</i></p>	<p>hunters.</p> <p>But to what extent they can affect the different caribou herds in Labrador, has yet to be discovered.</p>
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Act V

<p><i>Helicopter flying; interior w/Rob;</i></p> <p><i>Aerial forest</i></p> <p><i>Aerial of burn</i></p> <p><i>Aerial burn</i></p> <p><i>Alpha looks</i></p> <p><i>Pups at den Alpha howls pups hide; Helicopter flies away</i></p>	<p>Two months have passed since biologist Rob Otto collared the pregnant alpha female.</p> <p>He's now following her radio signal hoping to find a den.</p> <p>The signal picks up in an old burn site where a forest fire raged twenty years ago.</p> <p>She's below them, somewhere.</p> <p><i>Oh, here's one, right off the side...Hiding in the tree there.</i></p> <p><i>She looks, oh ya, she's been walking around there for a bit I'd say with this helicopter over top of her. She looks fine. Yep, right here, now.</i></p> <p>The alpha female seems reluctant to leave the area.</p> <p><i>Oh look there's wolves, right there. Three wolves, right there.</i></p> <p>Not wanting to disturb them further, Rob continues the search for his other collared animals.</p>
<p><i>Den site; Pan forest</i></p> <p><i>Song birds Adult wolf walks; alpha on rock howls Pups howl 3 Pups howl lying down</i></p> <p><i>uncollared wolf walks</i></p> <p><i>fighter plane passes</i></p>	<p>Wolves instinctively know where to den. This hillside of dry, sandy soil has good drainage, and a perfect view of the forest, still recovering from <u>the</u> fire.</p> <p>A pack's territory <u>can</u> cover up to 1000 square kilometers. But when they have young pups, they're tied to the den.</p> <p>At three months old, these pups can be left on their own much of the time now.</p> <p>With at least one member of the pack watching over them.</p> <p>Fighter planes from Labrador's military base practice low-level flying</p>

	here.
<i>wolf walks away</i>	<u>They've denned close to the military base, and don't seem bothered by the noise.</u>
<i>pups in woods, collared female; Rebecca speaks</i>	<i>Since we put these collars on these animals a couple of years ago, we've been able to start to get an idea of what kind of land area they've been using. Through collaring the animals in this pack, we're able to find out that they're using an area of 6-700 square kilometres, which we didn't know before.</i>
<i>adult leads pups away Rebecca;</i>	<i>This spring, the alpha female had 6 pups, which is a really healthy size litter, which is probably indicative of the good conditions in the area. This year, for the first time in several years, the George River herd wintered right and around this area, it probably provided some really good prey opportunities for the wolves over winter, which probably contributed to their good health and helped them to have a healthy litter of 6 this spring.</i>
<i>Pups at den</i>	
<i>Pups play</i>	<i>I would say at this point the pups are probably 3-3 and a half months old. When the pups are really young, the parents go out and do the hunting, gorge themselves and bring the food back to the pups and regurgitate for them. As the pups get older and able to venture farther from the den, honing their own hunting techniques through playing with each other and just exploring their habitat.</i>
<i>Adult looks</i>	
<i>Two pups wrestle</i>	
<i>Pups play tug of war</i>	The hierarchy these pups establish now will remain with them for much of their life.
<i>Alpha leads pups</i>	Every few days, the alpha female leads her pups away from the den towards water or a nearby carcass. They're in training for when they'll abandon the den for good, freeing the pack to wander once again.
<i>Uncollared adult walks</i>	<i>By the time the study's over, we'd like to have a better understanding of the predator-prey relationship and how each population is affecting the other within the area. We haven't collected as much data as we'd like yet, so we'll probably keep these collars on for several years, so we're hoping to look at not only the wolves and the caribou, but also the moose in the area and seeing how they're all affecting each another and living together.</i>
<i>Collared female</i>	
<i>Interior helicopter; aerial caribou</i>	Rebecca and Rob's research also includes Labrador's endangered woodland caribou.
<i>Aerials caribou running</i>	Unlike the George River herd, which migrates widely, small herds of woodland caribou live in the forest year-round. Some of these herds have decreased to less than 150 members.

<i>Aerials burn, moose</i>	In the last several decades, increasing numbers of forest fires have altered their habitat, opening up large areas of the forest—perfect conditions for moose.
<i>Aerials moose; caribou Helicopter; Rob darts a moose</i>	Rob is finding that moose are affecting the lives of woodland caribou. Their presence adds a new dimension to the predator-prey relationship Rob and Rebecca are trying to study.
<i>Rob tagging moose</i>	The information gathered from collaring moose, leads Rob to suspect moose in southern Labrador have a detrimental affect on the endangered woodland caribou.
<i>Aerial wolf running; Rob; aerial caribou running; moose in shrubs</i>	<i>We wanted to determine whether or not wolves were having a large effect on the woodland caribou we have in the region. These populations have experienced declines in numbers in recent times, and there is some degree of concern there's more wolves in the area, and moose allowing them to remain in the area has an affect on the threatened woodland caribou populations.</i>
<i>Bull stands; collared wolf</i>	Moose from Quebec began colonizing Labrador within the last 40 years, attracted by the new growth created from forest fires.
<i>Bull walks in shrubs</i>	They now offer wolves in this region an additional source of food.
<i>LS wolves attack moose</i>	While full grown moose are formidable opponents for wolves, woodland caribou may be more susceptible, allowing already low numbers to drop further.
<i>Collared wolf</i>	<i>These wolves are able to exist in higher densities than they would be able to otherwise, and as a result, just more frequently come into contact with caribou and kill caribou in those instances.</i>
<i>Wolf eating caribou</i>	
<i>Wolf eats</i>	<i>The teeth on wolves are actually amazing, their canine teeth are exactly miniature steak knives, very efficient at tearing meat and other tissues. They usually just tear the carcass open and eat in right through the hide. At times you'll find the carcass totally disarticulated, all the bone pieces separated from one another. The adults will actually gorge massive amounts of meat and carry it back to the pups in their stomach.</i>
<i>walks away gorged</i>	
<i>Wolf feeds</i>	Still, it's not an easy life. The numbers of woodland caribou in Labrador declined mainly due to human over hunting. But wolves may now be keeping their numbers down, not allowing them to recover. Wolves simply do what's in their nature.

<p><i>Head goes down river</i></p>	<p>But now, the survival of one species hangs in the balance, as <u>Labrador's</u> woodland caribou faces extinction.</p> <p><u>It will take further research to fully understand this complex predator-prey dynamic.</u></p>
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Act VI

<p><i>Rob in helicopter; aerial wolf</i></p>	<p>Biologist Rob Otto and his team continue tracking the animals radio-collared in Labrador.</p> <p><i>Comments from Rob in the helicopter</i></p>
<p><i>Helicopter interior; chopper flying</i></p>	<p>They've just picked up a mortality signal from one of the collared wolves, meaning the collar hasn't moved in days. Either the collar has fallen off, or the wolf has died.</p>
<p><i>Rebecca w/telemetry; dead wolf at tree Rebecca handles dead wolf</i></p>	<p>Rebecca Jeffery finds the young female near Goose Bay's landfill site.</p> <p><i>It became obvious as we were tracking her from the air that she was at the dump. It's probably less than 10 kilometers from town, it's quite close. Well, it looks like it's the female we collared two years ago...she pulled out and the snare remained on her foot and she's had it there ever since. She's really quite skinny and thin and I suspect she's had the snare on for some time...</i></p> <p>Locals had reported seeing a limping wolf at the dump.</p> <p><i>I'm upset that she's died in this way...It is absolutely legal to trap wolves here in Labrador, the furs sell quite well internationally, it's not uncommon at all, this one just went wrong.</i></p>
<p><i>Rebecca carries wolf</i></p>	
<p><i>Wolf furs on line</i></p>	<p>Canada remains one of the world's largest exporters of wolf furs, with Labrador's wolves in demand for their colour and quality.</p>
<p><i>Trapper talks</i></p>	<p><i>Well locally we sell them. For a big one you get 200-250 dollars, for an average one 100 dollars. But there's a lot of work to a wolf, a lot of cleaning. One season we had close to 50 animals between 3 brothers. It's different now because now we can go to different areas really fast using snowmobiles. Years ago it was dog teams, even though you saw a wolf in the distance, you just got to look at it I guess.</i></p>
<p>AUDIO MISSING</p>	
<p><i>Snowmobile in town</i></p>	<p>The snowmobile has become a way of life in the North.</p>
<p><i>LS line of</i></p>	<p>In the last twenty years, the number of machines here has tripled,</p>

<i>snowmobiles; wolf</i>	making it easier for more people to get out onto the land, where they can encounter wolves.
<i>Two teenage boys by snowmobile</i>	<i>Seen a wolf on the ice, must have chased him for 15 minutes and just being alongside an animal like that, you know he can just grab you and tear you apart is pretty amazing.</i>
<i>Teenage boy in blue</i>	<i>We were just chasing the wolf because we wanted the fur, but our skidoo wasn't fast enough to catch it.</i>
<i>Teenage boy in orange</i>	<i>We were just riding around and we seen a bunch of wolves and they just started following us. We stopped and they just started following us again. When we broke down for gas they just started running after us, my uncle had no choice but to shoot it.</i>
<i>Lone wolf howls; two wolves howl</i>	The universal fear of wolves crosses time and cultures. Though humans and carnivores exist here side by side, the age-old story of ‘the big bad wolf’ plays out in modern times.
<i>Single wolf stands</i>	Even those who live off the land still fear wolves.
<i>Elder speaks; pack of wolves feeding on carcass This section will be subtitled with the Elder speaking, not the interpreter</i>	<i>They're very dangerous when they're in packs. More than once I've seen wolves getting after caribou, during one time we saw a big pack of wolves, they're scary when they're in packs. He wouldn't want to be alone when they're in big packs because they are really dangerous, especially when they're hungry. He would urge other people not to be by themselves, he feels that sometime, in the future, when they're in packs when they're really hungry, they could attack a human.</i>
<i>Pan town scenic</i>	MISSING AUDIO
<i>Children running to school Children standing</i>	As Labrador's most northern community, Nain has a long history with wolves as it lies within the George River caribou herd's migration path—prime wolf country.
<i>Jessica speaks</i>	In the past, they've had good reason to fear wolves. Numerous wolf sightings once forced the town to close the school for days, as parents feared for their children.
<i>Snow machine; dogs</i>	<i>Last week I seen a wolf behind school and my brother caught it. he was just riding around, and he seen it and rushed home, it was just little but common, and it just stayed there until he got his gun and went back and shot it. I felt good because it was dead. I thought some people was going to get bit.</i>
	While a few sightings are normal, in the year 2000 a <u>series</u> of wolf attacks on the town's dogs sent panic throughout the community.

	<p>MISSING AUDIO <i>There was a pack of wolves that came into town and they were terrorizing dogs, and I guess a few people got pretty close to them, but nothing too serious happened.</i></p>
<p><i>Town's dogs; teenage boy with piercings</i></p>	<p><i>We was waiting for the wolf to come out where they were spotted, and the wolf came out and went to the dog and sniffed the dog and afterwards it cracked, bit it right on the neck and then walked away again</i></p>
<p><i>Teenage boy in blue</i></p>	<p><i>I guess my dog got a bit nervous so he jumped up on the fence. And the wolf came up to my dog and got closer and closer, and after a while they were neck and neck. My dad happened to notice it and he grabbed a shotgun and he ran out. The wolf took off.</i></p>
<p><i>Dog jumps on fence; teenage boy w/piercings; wolf</i></p>	<p><i>Not long after the wolf hopped out of the woods and started chasing him, and once he got so close White's father shot him, and the boys were that close to being attacked by a wolf.</i></p>
<p><i>Two teenage boys by snowmobile</i></p>	<p>In the end, a single rabid wolf was found responsible for the attacks.</p>
<p><i>Wolf stands</i></p>	<p>These occasional outbreaks of rabies are usually to blame for problem wolves. OR These occasional outbreaks of rabies usually create the problem wolves.</p>
	<p>Still, wolf attacks are incredibly rare.</p>
<p><i>Wolf trots away</i></p>	<p>No one has been killed by a wolf in North America. Yet for some in Labrador, the myth of the man-eating wolf endures <i>Musical interlude</i></p>
<p><i>Aerial wolf running</i></p>	<p>Despite the number of wolves killed in Labrador, Rob Otto doesn't fear for the wolves.</p>
<p><i>Various wolves in snow; helicopter Aerial wolf; wolf</i></p>	<p><i>It's very difficult to get an estimate of the total number of wolves in Labrador. The future for wolves in Labrador is very secure, Labrador is a very rugged, very isolated piece of country. There's lots of prey for wolves. I don't think there's any danger of wolves becoming reduced in number. I don't think it's possible because of the remoteness of the land.</i></p>
<p><i>Rob, wolf chasing caribou</i></p>	<p>Slowly, attitudes are changing. OR <u>Not everyone shares the fear for these animals.</u></p>
<p><i>Wolf chases</i></p>	<p><i>I think we need them, we need them around to keep the caribou herds healthy. As we go along we learn they're not as dangerous as they're made out to be</i></p>
<p><i>Trapper</i></p>	<p><i>The wolf was in the woods and it looked at us and it seemed scared and ran away, so if you don't bug them, they probably won't bug you.</i></p>

<p><i>Two teenage girls</i></p> <p><i>Teenage boy with piercing</i></p> <p><i>Older fellow</i></p>	<p><i>If you keep to yourselves and leave them alone, they'll probably keep to themselves as well.</i></p> <p><i>They've got to survive the same as a person, right. They don't bother me so I don't bother them.</i></p>
<p><i>Two wolves trot</i></p>	<p>The wolves of Labrador really are one of the few remaining intact populations of wolves on earth.</p> <p>Their survival may help protect the future of their species by maintaining the genetic diversity of wolves.</p>
<p><i>Single wolf trots</i></p>	<p>Over time, studies such as the ones taking place in Labrador can only help us understand these predators and their effects on the world around them.</p>
<p><i>Slo mo wolf on gravel</i></p>	<p>As long as caribou remain, there will always be the caribou hunters: the wolves of Labrador,</p>
<p><i>Caribou slo mo; wolf trots to cam</i></p>	

Alternative for graphic/genetic sequence in Act I (p. 1-2)

Alternative 1

Canis lupus: the gray wolf.

Once the most widespread carnivore in the world, habitat loss and relentless predator controls pushed wolves to a fraction of their former range, deep into wilderness areas.

Gone are the wolves from Japan, disappearing in the Middle East and nearly exterminated in Western Europe.

In Mexico and the U.S., wolves lost 95 % of their range, along with their genetic diversity.

Research shows that wolves in North America have lost over half of their unique genes, making the wolves of today more genetically similar than they were one hundred years ago. OR Research shows that wolves in North America today are more genetically similar than they were one hundred years ago. In that time, they lost over half of their unique genes.

Despite the loss, nearly three-quarters of the world's wolf population survive in the continents northern wilderness. Still, unique subspecies have become extinct.

Alaska's Kenai Peninsula wolf, reportedly one of the world's largest, disappeared by the early 1900s. As did the buffalo hunters, the wolves of the Great Plains. The Newfoundland wolf also went down this path. (OR ...also shared their fate.)

Alternative 2

Canis lupus: the gray wolf.

Once the most widespread carnivore in the world, habitat loss and relentless predator controls pushed wolves to a fraction of their former range, deep into wilderness areas.

Gone are the wolves from Japan, disappearing in the Middle East and nearly exterminated in Western Europe.

In Mexico and the U.S., wolves lost 95 % of their range.

These losses also devastated their genetic heritage.

Over a hundred years ago, North America's wolves once carried a wide range of unique genes, but as their range shrank, so too did their genetic diversity. Research now shows that today's wolves have half the genetic diversity of historic populations.

Despite the loss, nearly three-quarters of the world's wolf population survive in North America. Still, unique subspecies have been lost.

The Mexican wolf clings to existence while Alaska's Kenai Peninsula wolf, reportedly one of the world's largest, disappeared (by the early 1900s). As did the buffalo hunters, the wolves of the Great Plains. The Newfoundland wolf also shared their fate.