

“Salmon on the Rough Edge of Canada and Beyond”

This series of 10-short stories has been written to honour the salmon, the beautiful rivers that they exist in and some of these memorable people who have worked tirelessly over the past decades on the task of conserving and restoring these iconic species.

The author, Matt Foy, as a biologist with the Fisheries and Oceans Canada (DFO), Salmonid Enhancement Program(SEP) for 35 years (now retired), has tried to capture small glimpses into their world and the world of salmon.



By Matt Foy

Listen up boys and girls you need to know a few things before you read this story.

The story happens in a lake now called Alouette Lake that is part of the lower Fraser River watershed.

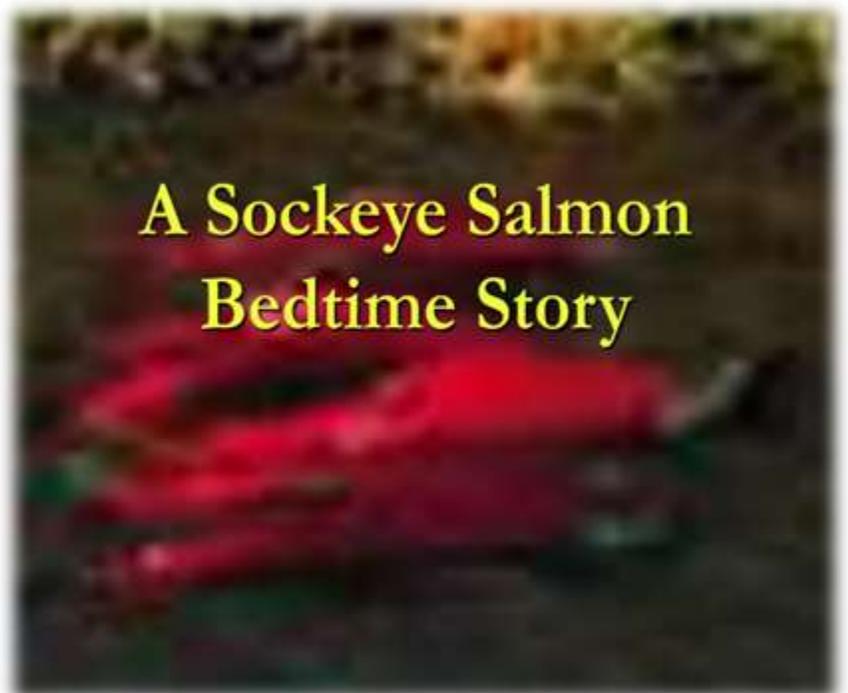
This area has been the home of the Katzie and other Sto:lo indigenous peoples for many, many, many generations. They call their homelands ... S'olh Te'me'xw.

The Xexa:ls, are the three black bear sons and one daughter, that came into the S'olh Te'me'xw world when animals and humans could still easily assume each other's forms and speak to each other.

During their journey through the world they made it the way we know it today through their transformations.

<http://missionmuseum.com/local-history/stolo/>

Salmon people lived in a village under the sea and sent their sons and daughters, who were transformed into salmon, to be caught by their relations on the land so they would not go hungry. Each new year the first salmon are honoured by indigenous people all along the Pacific Coast in First Salmon ceremonies where the bones of the first salmon



are returned to the water as a sign of respect for the sacrifice the salmon people make each season. <http://www.srrmcentre.com/cie>

Glacial erratics are large boulders that fall down from a mountain side and land on the top of a moving glacier. These large boulders can be carried for a long way before the glacier finally melts and the rock drops onto the ground, sometimes in the middle of a river, or a field or at the bottom of a lake, just about anywhere.

https://en.wikipedia.org/wiki/Glacial_erratic

When people see large glacial erratic boulders, they are often surprised because they look so different from the other smaller rocks and dirt and many stories have been told how they have gotten to the places that they are now.

Sockeye salmon are one type of salmon that generally lives in a lake for one or two years as a small fish before swimming down to the ocean to live for another two or three years before coming back to their home watershed to spawn and lay their eggs.

https://en.wikipedia.org/wiki/Sockeye_salmon

Sometimes the adult sockeye salmon spawn in a stream near the lake so the young baby fish can float or swim into the lake easily. But sometimes sockeye salmon spawn in special places deep in the lake where there is some good gravel and small springs or upwelling groundwater which flow through the gravel keeping the eggs healthy and alive.

Sometimes the young sockeye salmon after living in the lake for two years decide they don't want to go to the ocean or maybe they can't because something is in the way so they can't leave the lake. These sockeye that live their whole life in the lake are called "kokanee" or landlocked sockeye salmon.

This story was written for very important individual from the Alouette Lake watershed. You have to get to the end of the story before you find out who that is.

Let's get started.

Once upon a time...

A long, long time ago...

When S'olh Te'me'wx...

Sto:lo lands were soon to be ruled by the age of ice...

A snowflake fell...

Upon a mountain of ice...

This last feather of snow ...

As it landed...

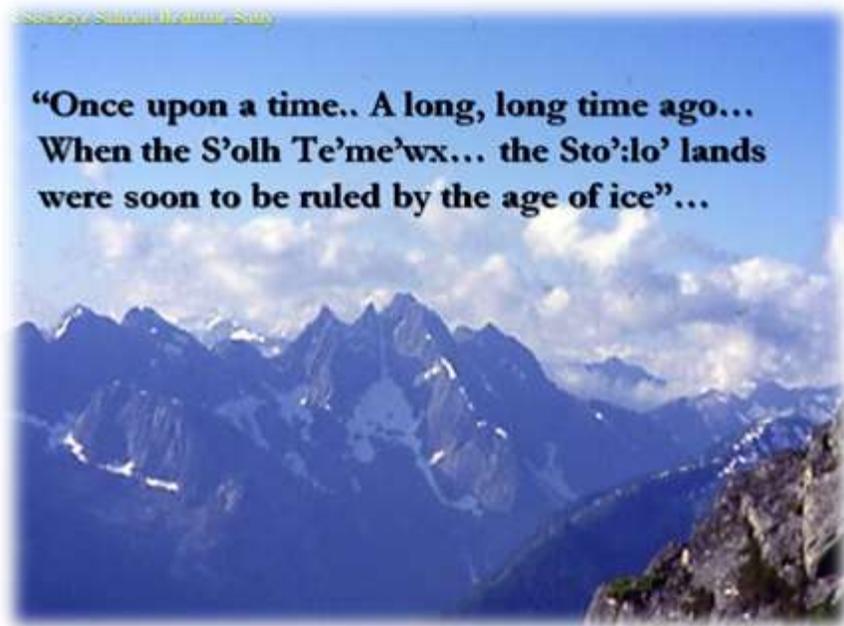
That mountain of ice...

Began to move...

Down toward the valley below...

A glacier was born.

And so, begins the tale of the sockeye salmon of Alouette Lake.



Some 12500 years ago that glacier....

The Alouette Glacier...

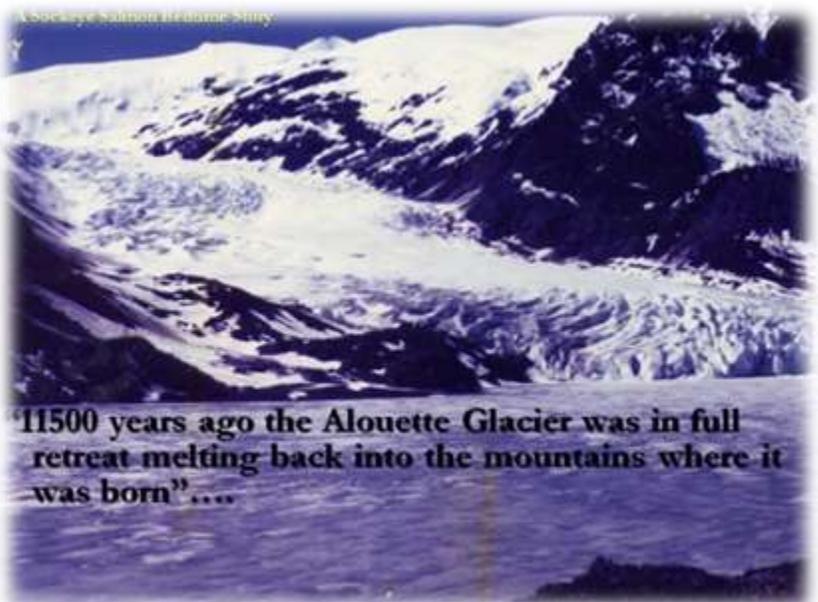
Flowed down from the mountain into the valley below...

With its shoulders against the mountain tops on each side ...

And its belly pushing at the bones of the earth...

A deep cleft between the mountains was torn...

By 11500 years ago the Alouette Glacier was in full retreat...Melting back into the mountains where it was born...



By 10000 years ago...

the deep depression in the valley...
that the glacier had cut into the
earth...

was now ice free and was rapidly
filled with water...

what we now know as Alouette
Lake...

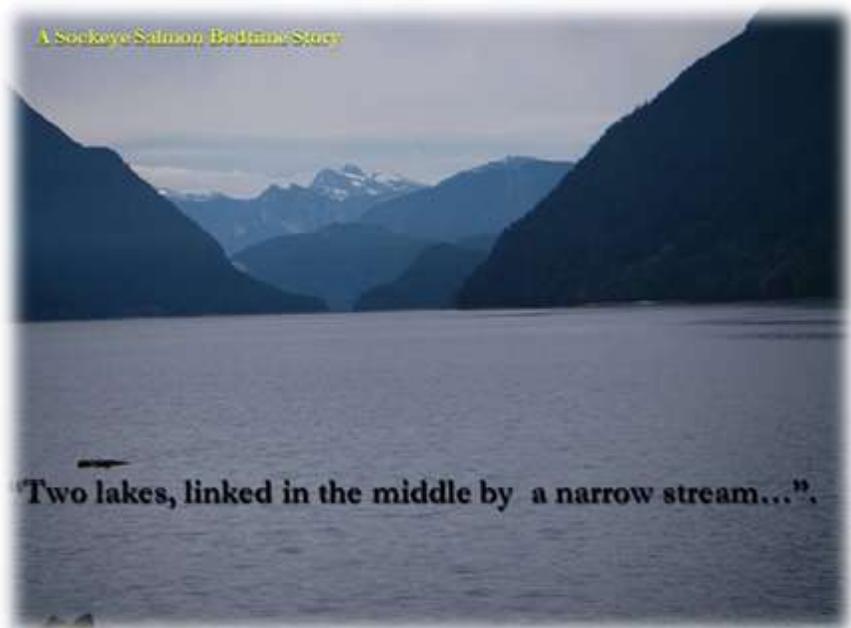
was born...

Surprise...

It was twins...

Two lakes lined in the middle by a
narrow stream...

a pair of gifts from the glacier.



Somewhere deep under the
saltwater bay, two sockeye salmon
people were ordered by their chief to
leave the ocean and go back to a
small lake.

They were sent to find a certain...
special... gravel beach.

Four years earlier they had been
little eggs in the gravel of that
beach.

And it was now time for them to
return home from the sea.

From beneath the gravel, cool
waters up welled from springs deep
underground...

keeping waters fresh and clean in the special spawning beds of the little lake.



The year before, unknown to these two sockeye, which were still far out in the North Pacific Ocean...listening to the singing of the great humpback whales and feasting on small animals called krill...

A great rock, carried on the very top of the retreating mountain glacier ...

...known as a glacial erratic...

because those large rocks can't keep their story straight and are always going on erratically about all the places they have been...

as they were carried along by the glacier... which really upsets the other rocks that are mostly stuck in the ground and don't get to go anywhere...anyway...

As that large and stubborn piece of granite fell off and rolled down off the glacier it became stuck in the middle of the creek and barred the way home ...

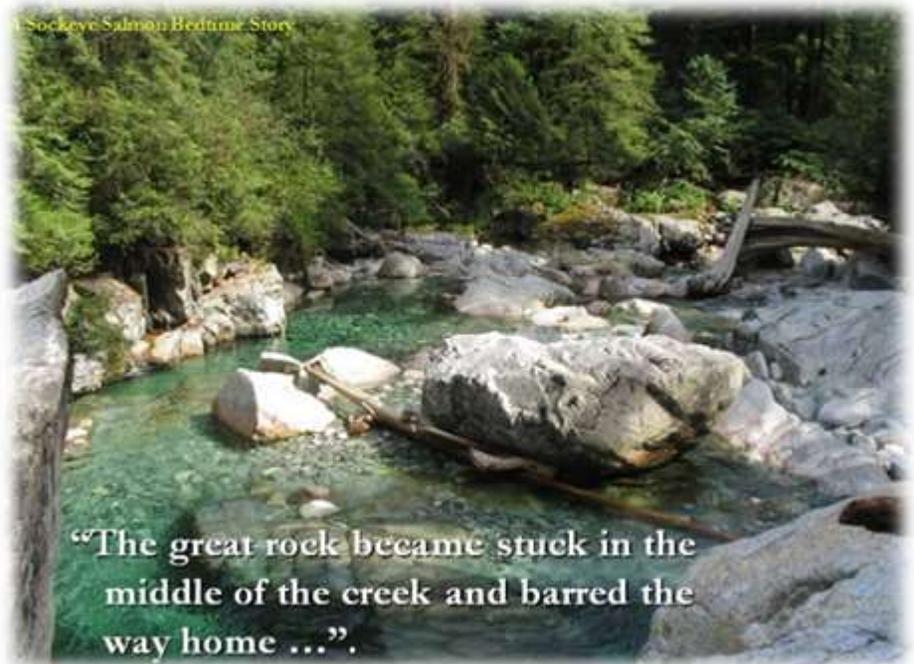
for any salmon swimming upstream.

When the two returning sockeye finally found their home creek and swam upstream... and saw their path blocked by the big rock ... they tried and tried to get by but they couldn't ...

So, they turned downstream and swam away looking for a new home.

Up they swam into another little stream nearby which led them deep up into the mountains...

Up over rock and rapids they swam...leaping past Mr. Grizzly who gave them a big toothy grin, and said "Welcome to the neighbourhood" as they leapt over his shoulder.



Until finally they found clear, still, blue water...

They had found Alouette Lake, both of them, and came upon a gravel beach with cool spring water, that was just perfect for them to lay their eggs in.

They had found their new home....

This was exactly, 10,314 years ago, last Saturday.

As they waited to spawn they both started to turn the colour red.

But one of the sockeyes nose grew long and his back humped up like a buffalo. Its head turned green.

At first that sockeye thought it had some terrible sickness since the other sockeye salmons nose did not grow long and hooked and while it was red, its head was not so green and it still looked pretty sleek not all humped up with a big nose.

After considering the matter, both of the sockeyes realized at once that the one with the misshapen head did not have a terrible disease but was a boy.

The sleek one was a girl and after realizing that they dug a nest in the gravel of the spawning beach together, laid and fertilized her eggs, buried them deep where they were protected and then happy they had completed their spawn and were not sick after all... they died...still happy... as all salmon do after spawning.

And that was the beginning of the Alouette Lake sockeye salmon run, exactly 10,314 years ago, last Wednesday.



Somewhere between 9000 to 10000 years ago, the first people passed through the Alouette Lake valley on their way to their fall hunting grounds in the mountains.

As they came down to the shores of the Alouette Lake they glimpsed the red bodies of the spawned salmon washed up on the lake shore...

Salmon provide food to people and bears and birds and all things living in the stream and lake.

But they are hard to catch when they are deep on the lake spawning grounds....

After they have spawned they provide food to the people and animals but they are much fatter and tastier when they first arrived from the ocean.

The people thought perhaps we could catch them when they first came up the river... but how?

When the people built the first fish trap we don't know.

But they would build many traps, year after year to catch the fat salmon in the river as they returned to Alouette Lake.

The salmon started coming back to the lake during the summer time when the snows high on the mountains was rapidly melting and the river was flowing fast making it hard to trap the river.



Some sockeye salmon were caught and some got by the trap and many were let pass by the people to continue on.

The people of the river knew that the salmon people under the ocean provided their bodies as food to them and this needed to be respected.

The first salmon caught were always shared among the people of the village and the bones returned to the river as a sign of respect and thanks for the sacrifice of the salmon people from under the ocean.

Babies born, salmon caught, traps built, bones to the river, fire, flood, spring, winter, summer and so it went for over 450 human generations.

A Sockeye Salmon Bedtime Story

“The first salmon caught were always shared among the people of the village and the bones returned to the river....

as a sign of respect and thanks for the sacrifice of the salmon people from under the ocean”.



In the early part of the last century, the people of the growing City of Vancouver needed electric power which was becoming the life blood of modern human societies.

Strong men and women provided the new city with its ...electricity.

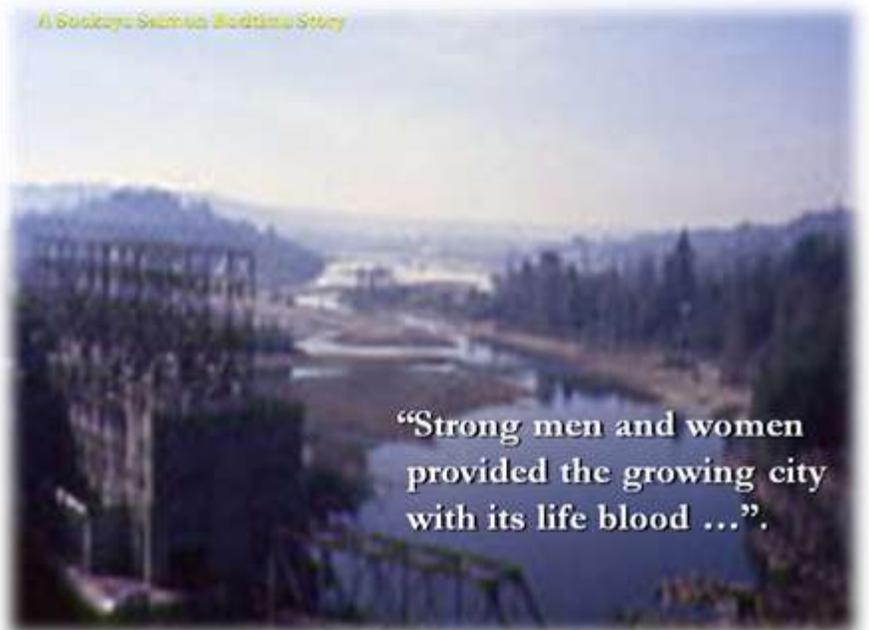
Rock, dynamite, sweat, concrete and steel provided that power through the construction of hydro-electric dams.

All the major rivers close to the City of Vancouver were looked at as a means to provide the power for the growing economy.

A dam was constructed at the outlet of the twin lakes in 1925, then known as the Lillooet Lakes. The new dam raised the lakes level to provide a reservoir hydro-electric power.

A Sockeye Salmon Bedtime Story

“Strong men and women provided the growing city with its life blood ...”.



The two lakes became the single one we know today, Alouette Lake or some would say Alouette Lake reservoir.

A rock tunnel was cut deep under the mountains from the new Alouette Reservoir down to the Stave Lake and the next door. Virtually all of the water flowing into the Alouette Reservoir was re-directed out of the watershed and into the Stave Reservoir.

Water falling from the Alouette Reservoir now passed through three power generating plants before flowing into the Fraser River near Ruskin.

The power from these dams provided the people with their telephones, lights, computers, cell phones, electric stoves, refrigerators and all things that make noise, light up or go bump and beep in the night...electricity.

All this power made most of the people very happy...but not all.

In 1929, the beginning of the great depression spread across our economy, the last Alouette Lake sockeye salmon, returned to the base of the Alouette Lake dam.

Most people were too worried about feeding their families to take much notice about what was happening in the river.

Most of the returning sockeye salmon that year, waited patiently for the large dam to move aside and let them pass, it didn't and they died waiting.

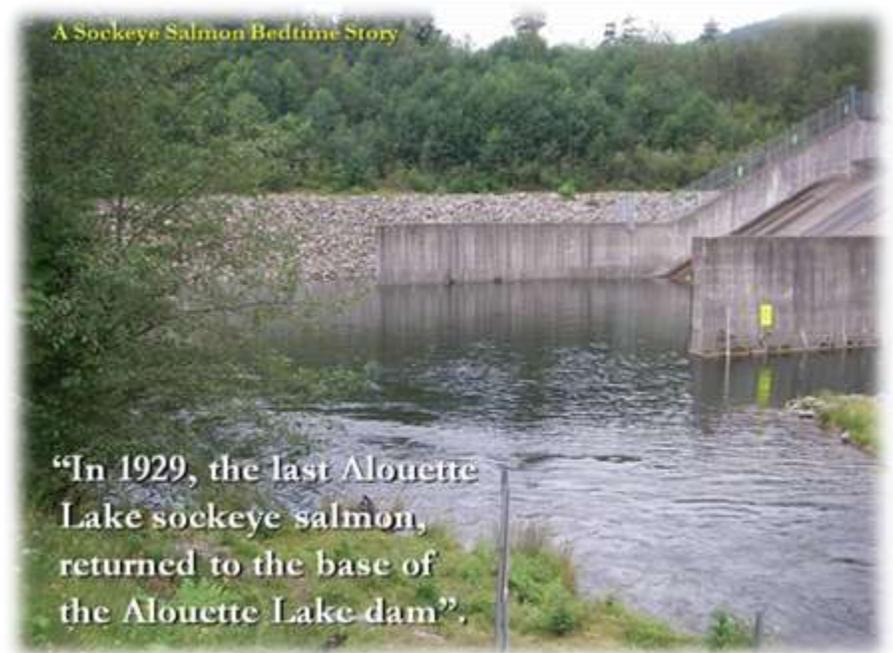
Some tried to jump the dam and died on the rocks at its feet.

The last two sockeye salmon that returned to the Alouette River, that last year, remembering the stories of their ancestors, so long ago, when the great erratic rock barred their way to their home lake, turned downstream, and left the Alouette River seeking another home, somewhere else.

The sockeye salmon people under the ocean did not send their children to the village on the Alouette River any more, after that time.

This was the way it was for one human lifetime.

For seventy-six years, no sockeye salmon returned to Alouette Lake.



For those 76 years, the people of the valley enjoyed the benefits the electricity generated by the dam, brought to their communities.

Babies born, homes, roads and factories built, fire, flood, spring, winter, summer for eight decades.

But some people could not forget what was lost and the debt they still owned to the salmon people for the gifts they had given them over the many centuries since the glacier had first left the valley.

A consultative council was called by the power dam people and they gathered all the information, memories and skills and made a plan to see if they could get the sockeye salmon people to return to the Alouette River.

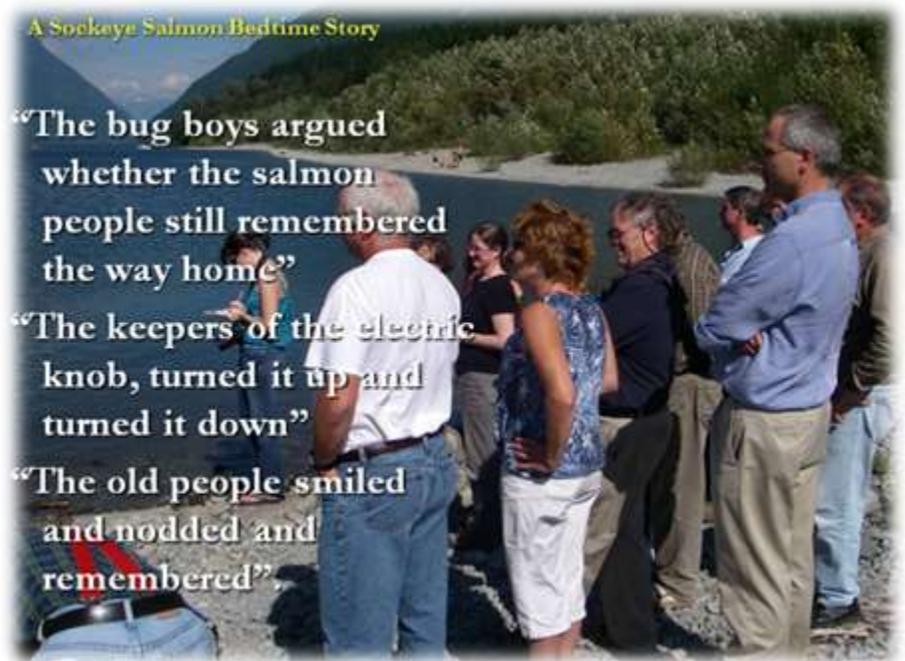
https://www.bchydro.com/content/dam/hydro/medialib/internet/documents/planning_regulatory/wup/lower_mainland/2010q2/alu_2010_annual_report.pdf

The river watchers (Community) listened what the Alouette River was saying to them.

The bug boys (Biologists) argued whether the salmon people still remembered the way home.

The keepers of the electric knob (BC Hydro dam engineers), turned it up and turned it down, to see if they could convince the river to once again flow over the dam... and not into the tunnel deep under the mountain.

The old people smiled and nodded and remembered.



In the spring of 2005, as the salmon berry and wild rose bloomed along the banks of the Alouette River, and the red throated humming birds were buzzing about chasing intruders from their flower patch, something miraculous happened.

As the electric knob was turned down, the river jumped back over the dam and began to flow downstream. It had indeed remembered the way to sea.

The people of the consultative council were delighted and congratulated BC Hydro, the keeper of the knob, for a job well done.

What the consultative council did not know, was that deep under the Alouette Lake, nestled in the cleft in the bones of the earth, there remained, a small village of the salmon people, long ago trapped by the concrete mountain at the outlet of Alouette Lake.

For 78 years, each spring they had sent runners to the outlet of Alouette Lake, to see if the way was open to go back to their main village under the ocean.

Each spring the runners returned to the village with the same story, the way is blocked.

In the spring of 2005, the runners returned to the village with a different story.

The river has leapt over the concrete mountain and the path is open, the runners cried. That spring the entire village under the lake, collected their families and belongings and passed over the concrete mountain, running silver to the sea to see their long-lost relatives.



The silver swimmers brought news to the salmon people villages that the people of the Alouette were calling them home and that their return would be celebrated once again.

In the fall Of 2007, salmon people once again sent their sons and daughters back to the Alouette River.

Sockeye salmon returning to the Alouette River, were greeted by a river trap like in years past.

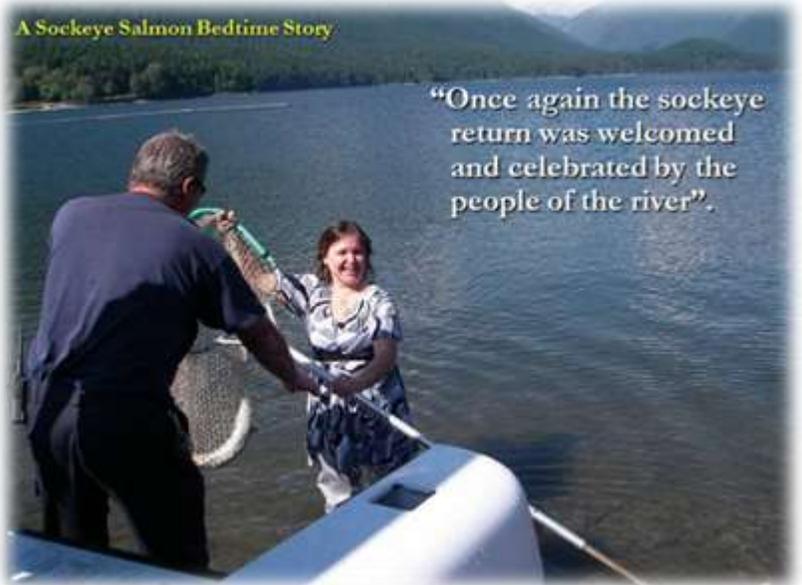
The sockeye return was welcomed and celebrated by the people of the river (Katzie).

<http://eire.ca/history/heritage/hist1.html>

They were allowed to pass back over the concrete mountain at the outlet of the lake, so they could return to their ancestral spawning grounds deep in the depths of Alouette Lake...

So little one...As you drift toward your winter sleep, more sockeye salmon are gathering in the ocean to return next year and the year after that and the year after and so on....and so on...

A Sockeye Salmon Bedtime Story



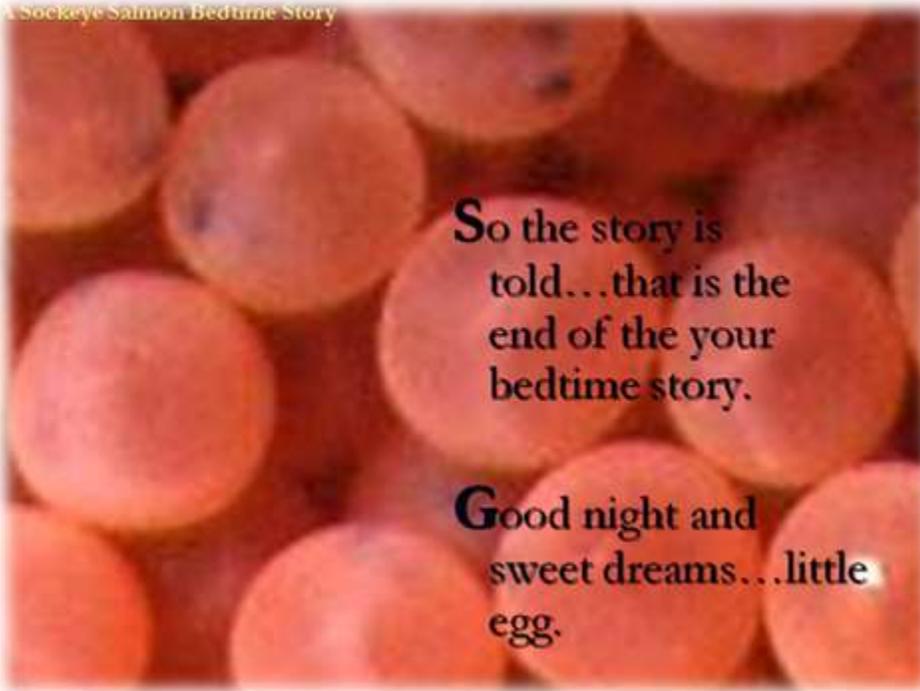
"Once again the sockeye return was welcomed and celebrated by the people of the river".

A Sockeye Salmon Bedtime Story

News flash: Xexa:ls Times

"As of 10:31 AM, last Saturday, November 10, 2007... it was first reported by an otter.... and recorded by a transient bear... who e-mailed a local newspaper reporter... that the **first** sockeye salmon egg.. from the first sockeye salmon return to the Alouette Lake since **1925**, has now found its way into the gravel spawning beds... deep in the depths of Alouette Lake".

Stay tuned!



So, the story is told...that is the end of your bedtime story.

Good night and sweet dreams...**little egg.**

As you lie protected from the winter storms, snug in your gravel bed... deep at the bottom of Alouette Lake.

Find the light... when the spring comes...

...**O**h, silver swimmer back from the sea...

[https://www.researchgate.net/publication/235702446 Sockeye salmon Oncorhynchus nerka return after an absence of nearly 90 years A case of reversion to anadromy](https://www.researchgate.net/publication/235702446_Sockeye_salmon_Oncorhynchus_nerka_return_after_an_absence_of_nearly_90_years_A_case_of_reversion_to_anadromy)

Epilogue:

- In April 2005, an experiment began, which raised the level of the Alouette Reservoir level so water could be released over the top of Alouette Lake dam. Water flows over top of the dam had not occurred during the spring period for most of the 79 years since its construction.
- That spring, an estimated 10,000 landlocked sockeye salmon smolts migrated over the Alouette dam for the first time since 1926 when the dam was constructed.
- This was a completely unexpected and unprecedented event.
- The smolts were recorded swimming past the Port Mann bridge in the lower Fraser River. One of these smolts was tracked by sonic tag listening array, leaving the Strait of Juan de Fuca out into the North Pacific Ocean.



- Two years later, in the summer of 2007, for the first time in 81 years, adult sockeye salmon swam out of the Pacific Ocean, up the Fraser River, into the Alouette River and were trapped and passed over the Alouette Lake dam to return to their ancestral spawning grounds in the lake.
- This event was celebrated as a miracle of salmon recovery efforts.



Acknowledgements:

- Thank you:
- Katzie First Nation.
- People of the Alouette River watershed.
- Alouette River Management Society
- Fraser Regional Correction Centre
- BC Hydro
- All the elected and unelected public servants of the various levels of government.
- Good night and sweet dreams.

Particular thanks to the Katzie (Debbie Miller) and the Alouette River Management Society (Geoff Clayton) who's dedication to the restoration of the Alouette River and its fish and wildlife, moved mountains and help bring all the parties together on this honourable effort.