

Back in Safe Waters: The Salmon of Vancouver

Text by Louis Otis

Images by Fernando Lessa

The Pacific salmon, one of the symbols of British Columbia, is back in Metro Vancouver. To be accurate, it never completely left, but for a while in the mid-1900s, its future was hanging by a thread. Pollution, destructive urban development, and weak environmental legislation threatened to force it out of the area. This was a sad development for the salmon, a local resident since time immemorial and an integral part of many First Nations' way of life for centuries.

Stuck in traffic

Diver and photographer Fernando Lessa has been documenting the state of the salmon and of its habitat in Metro Vancouver for the last two years for his not for profit project, Urban Salmon. The objectives were to document

the fish in its Metro Vancouver habitat, donate an image bank to local conservation groups for educational purposes, and produce a photography book.

The project came to life a bit by accident. Fernando had arrived in Vancouver a few months earlier. He had been involved in marine projects in his native Brazil in the past and planned to do it again eventually.

By 1955, Brunette River had almost become a dump and the salmon were almost extirpated. It was the first river in Metro Vancouver to be restored by a streamkeeper group. It is now home to four species of salmonids. The yellow and orange hues take over the Metro Vancouver landscape in the fall. It signals the pre-winter rains are coming, and so is the salmon.

*Brunette River, Burnaby, BC
Nikon D800
1/4 f8 ISO 1600 20-35 f2.8 Nikon*





*A cutthroat trout feeds in the rapids of Lynn creek, North Vancouver.
Nikon D800, Ikelite housing, 18-55mm Fx f3.5-5.6 +2close-up. SO 800 1/200 f11
Ikelite D800 Housing, 180mm dome + extension. 2 Nikon SB105 with diffuser.*

But for the time being, between getting settled and studying, he figured he had other fish to fry.

One day, as he was stuck by Byrne Creek Ravine Park in Vancouver's brutal rush hour traffic, he looked the place up on his phone and learned it had salmon. "I just decided to return the next day with my wetsuit and photography gear," he recalls. That's how Urban Salmon began.

Over the next two years, Fernando donned his wetsuit countless times, diving in over 25 creeks of

Metro Vancouver to chase salmon in sometimes murky and often frigid waters.

A story of resilience

Who has ever seen a teddy bear of a salmon? Who goes on a trip to dive in salmon rivers? Salmon don't have the same appeal as say, sharks, clownfish, or coral, and their habitat is certainly not as sought after by divers. That makes attracting attention and getting funding for conservation challenging. And yet, the salmon's



*A modern wild fish has to share space with urban environments.
Eagle Creek, Burnaby, BC*

journey in life may be one of the most fantastic of all marine species.

They hatch in creeks and rivers before swimming out to sea through a network of streams that can be simple or very intricate, depending on their point of origin. After a few years in the open sea, they embark on the salmon run one of nature's great spectacles.

Their journey takes them hundreds or thousands of kilometres back to spawn – and usually die – in the creek or river where they were born. The run is not just fascinating

because of the precision with which the salmon are able to find their place of birth. It also benefits a whole ecosystem, from the species that feed on the running salmon to those that use nutrients from decaying salmon in the streams or that wash up on the banks.

As development heavily impacted the network of streams and the water quality in many parts of the Metro Vancouver watershed, getting back to their spawning grounds proved difficult for the salmon, if at all possible. By the second half of the



A pink salmon (Oncorhynchus gorbuscha) laid these eggs in the Seymour River. The winter rains will cover the eggs deep under the gravel where they will mature for around 90 days. Once they hatch, the young salmon will migrate straight to the sea, where they will spend the majority of their two-year life cycle. Seymour River, North Vancouver, BC. Nikon D800, Ikelite Housing, 1/125 f8 ISO 1600 Sigma 15mm f2.8



Pink salmon (Oncorhynchus gorbuscha) are bright silver in the sea. Once back in freshwater, their colour changes to pale grey on the back and yellow-white on the belly. Males also develop a big hump on the back. They are usually found in bigger rivers and run on odd years. Here, a male pink salmon is transitioning from seawater to freshwater form. Seymour River, North Vancouver, BC. Nikon D800, Ikelite Housing, 1 SB-105. 1/125 f8 ISO 1600 Sigma 15mm f2.8

1900s, the once thriving salmonid populations were dwindling fast.

In the 1970s, streamkeeper groups and associations dedicated to the protection of the salmon and watersheds in BC were aware that the point of no return was close. The salmon was no one's priority. That's

when they rolled up their sleeves and started to get more involved.

Through the hard work of volunteers dedicated to protecting BC's watersheds and better environmental legislation, the outlook gradually improved and salmon started returning to Vancouver

in greater numbers. Studies such as Urban Salmon show that after 40 years of efforts, a balance in the ecosystem seems to have been restored. But this story serves as a reminder that the line between a healthy and agonizing watershed can be dangerously thin.

From Brazilian rivers to Canadian rainforests

Fernando credits his grandfather as the source of his passion for fishing and diving. He later studied biology, and it only made sense he sought to combine his studies with



Hastings Creek is a short creek in North Vancouver. Though it was heavily altered, it still has some charm. Here, juvenile wild salmon flourish in Hastings Creek Park.

Hastings Creek, North Vancouver, BC

Nikon D800, Ikelite Housing, 2 SB105.. 1/125 f16 ISO 1600 105mm f2.8 macro.

his love of water and photography. He dived extensively in Brazil where he participated in underwater documentation projects in the Coastal Mountain creeks and rivers, in the savannah, and in the Amazon rainforest. He would face different logistical challenges for Urban Salmon, however.

Diving in the frigid waters of Metro Vancouver in search of salmon was a new experience for Fernando. “I started with a 7mm second-hand

wetsuit,” he says. “I used it for a year, but it started to fall apart and I got tired of freezing. I now use a semi-dry suit which allows me to get in the water year-round. The issue”, he adds, “is that gear is often made for diving in the emerald or blue waters of the tropics, and that’s definitely not what you get in the Pacific Northwest!”

Besides the cold water, lugging a good underwater photography gear setup to the diving spots was not always easy. “Using a boat as a base



The Nooksack dace (Rhinichthys cataractae) is one of the many endangered species found in our urban streams. They are part of the Chehalis fauna, a unique group of fish that got isolated in the Pleistocene glaciation. They are only found in four rivers in British Columbia and are protected under the federal Species at Risk Act (SARA).

Brunette River, Burnaby, BC

Nikon D800, Ikelite Housing, 2 SB105. 1/125 f8 ISO 1600 105mm f2.8 macro.

allows you to bring a lot of gear, but when you’re hiking a few kilometres or bushwhacking through thick forest, the reality is different,” Fernando explains. “Limiting the equipment to the minimum is important. I’m not afraid to take my gear to the limit, and sometimes beyond. If I don’t, the logistics behind some dives become much more complicated.”

The project required patience to

visit all the creeks to find the salmon, not to mention browsing through and editing over 50,000 photos. But the frequent dives allowed Fernando to swim with thousands of salmon, get a good peek at their universe, and document it all thoroughly. Managing the project to make it fit with work, studies, and regular obligations sometimes proved challenging, but the itch to get underwater always



*A coho salmon (Oncorhynchus kisutch), still in its ocean colors.
Brunette River, Burnaby, BC
Nikon D800, Ikelite Housing, 2 SB-105 . 1/125 f8 ISO 1600 Sigma 15mm f2.8*

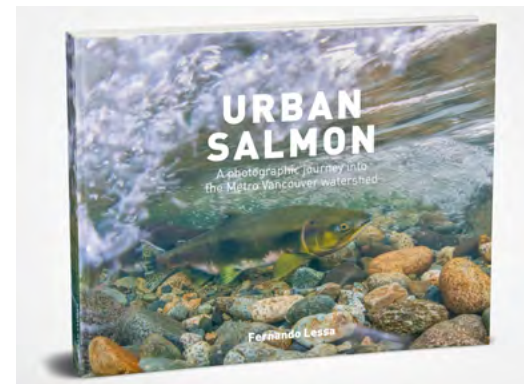
prevailed.

In the end, Urban Salmon was a resounding success, receiving support from local conservation associations as well as from some businesses, including Patagonia. It produced over 50,000 photos and videos, a lot of which will be donated to local streamkeeper groups for educational purposes. Fernando also recently released a photography book that features some of the best and most important photos from his dives.

Promoting conservation through photography

The photos are telling: the fish are back. They adapted to a revitalized watershed that still features some underwater man-made structures, and streams that are barely a few inches deep and run parallel to roads. The salmon is resilient and seems to have found its place once again, but the balance remains fragile.

Most people's reflections about salmon are limited to their dinner table, so raising awareness about its



state is no easy task. To guarantee their survival, our species has to keep lending a helping hand, and that often comes in the form of selfless volunteer work or not for profit initiatives such as Urban Salmon. As Fernando points out, one of his objectives was to "remind people of Vancouver that having this incredible fish in their backyard is a privilege they should not take for granted."

Urban Salmon's positive reception will allow Fernando to keep working on conservation initiatives. His new project, "The Hearth of the Fraser", will look at the Fraser River, one of the most important rivers in British Columbia, both economically and environmentally, but also one that is suffering from nearby development and farming.

In the meantime, the video shot for Urban Salmon will be turned into a short documentary. The newly published book, Urban Salmon: A photographic journey into the Metro Vancouver watershed, is available

online at www.urbansalmon.com/book and ships worldwide.

Louis Otis

Louis is a freelance writer and photographer with a healthy interest in the outdoors.

Fernando Lessa

Fernando is a diver, photographer, and biologist. Urban Salmon is his first solo project in North America. Find more information about his project and his book

www.urbansalmon.com



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