

To bring back endangered fish, this First Nation is claiming environmental management authority

10 July 2020, by Grace Palmer



Eulachon can be sun-dried, but this is only one of many ways to process the nutritious fish. Credit: [Brodie Guy](#)

Over 20 years ago, the Bella Coola River—located in southern British Columbia and central to the traditional territory of the Nuxalk Nation—saw its [last healthy run](#) of eulachon before populations dramatically crashed in 1999. A sovereign Indigenous or First Nation within what is known as Canada, Nuxalk people have maintained a strong relationship with the eulachon since time immemorial. Known as sputc in the Nuxalk language, spawning populations in the Bella Coola remain a fraction of their historical size, but recent years have seen greater numbers of fish entering the river as winter turns to spring and the fish make their migration. Now, the Nuxalk Nation is leveraging the case of eulachon to strengthen its own environmental [management authority](#), with the hopes that one day the fish will [return home](#).

A kind of smelt, eulachon are [anadromous fish](#), which means they spend the majority of their adult lives in the ocean and return to their natal streams

only to spawn and to die. The larvae [hatch](#) in freshwater streams at between two and four weeks of age, and proceed to spend an average of three years in nearshore ocean waters. Upon reaching sexual maturity, the fish must find its way back to a river suitable for spawning, using precious reserves of energy to battle against the current.

The eulachon's biology aids them in this long journey, however, and has added benefits for those who harvest the fish. With the highest fat content of all marine fish, each eulachon averages around 20 percent fat. Typically referred to as "grease," eulachon oil is [rich](#) in fatty acids, omega-3s, retinol, and vitamin A. Once a dietary staple, the social, economic, and cultural value of the grease rendered from the fish remains significant. To [prepare](#) the grease, eulachon are placed into what is referred to as a stink box, where the blood drains and the fish ferment for up to ten days. Then, to render the oil, the fish are simmered in a large vat, a process that takes several hours. Finally, the oil is pushed to one end of the vat, filtered, and sealed in jars to preserve its freshness. Historically, grease would be held within a wooden box, sometimes carved. The boxes would, over time, accumulate a shine from the oil.

For centuries, overland "[grease trails](#)" connected coastal and inland communities and made possible the exchange of goods. Widely regarded as the most notable trail, the Nuxalk-Carrier Route stretches 260 miles from Bella Coola, on the coast, to the red cedar forests of [Quesnel](#) in the interior. It is said that as long as [6,000 years ago](#), eulachon grease stained the trail as it dripped from the boxes carried by Nuxalk and other First Nation traders.

For the Nuxalk in particular, eulachon are central to national identity and sense of self. Historically, the return of eulachon to the Bella Coola [signaled](#) the

end of winter in the Pacific Northwest, and the entire absence."

community engaged in the harvest. To [catch eulachon during their spring run](#), fishermen used wooden rakes, dip nets, or conical traps. Traditionally, the first canoe load was given to the community. Only then would fishers keep their catch for their families. To honor the occasion, [community members](#) told stories, sang, and danced in the Eulachon Welcoming Ceremony.

According to Megan Moody, a Nuxalk fisheries biologist, a [sense of uncertainty](#) and loss pervaded the community during those years in which the eulachon were absent from the Bella Coola. As she [told](#) the Coast Mountain News in 2014, "People just don't know what to do anymore when spring comes now. All that activity, the camps, the woodcutting, the fishing, it's all gone."



Large vats like the one above are used to cook eulachon and render the valuable oil, or grease. Credit: [Kevin Amboe](#)

Charles Menzies, a professor of anthropology at the University of British Columbia and a member of the Gitxaa? Nation (whose homelands lie 150 miles northwest up the coast from the Nuxalk), explained to GlacierHub what's at stake when culturally significant species like eulachon are lost. "A powerful sense of grief is experienced by the absence of this thing. It's like losing an elder, it's like losing a close family member."

"But," he said, "we will continue, even in their

There are no clear answers as to why, in 1999, eulachon were suddenly absent for their annual spawning runs in all rivers within Nuxalk territory, including the Bella Coola. Experts in the community, however, have [noted](#) that the disappearance coincided with the expansion of a nearby shrimp trawl fishery, notorious for a high margin of eulachon bycatch. The absence of eulachon [persisted](#) until 2012, when the community began to observe modest numbers returning to spawn each spring. Historically, runs amounted to around 150 tons of fish, while in recent years only between 110 and 220 pounds of fish have been found returning to the river.

Menzies explained that while commercial shrimp fisheries are a large part of the problem, there's more to the story. "[W]e also have the global warming issue, where the retreat of glaciers... is really pushing the eulachon runs further north," Menzies told GlacierHub. Located on rivers which descend from the heavily glaciated Kitimat Ranges, the Bella Coola has always run cold enough to maintain thriving eulachon populations. As a cold water species, eulachon spawn primarily in rivers [fed by glaciers](#). When these glaciers shrink, however, the fish are faced with two possibilities: adapt, or leave.

Although the fish have been largely missing from the Bella Coola River, their tenaciousness bodes well for their overall survival. Eulachon maintain a measure of adaptability in their ability to choose streams and rivers with maximum [suitability](#) for spawning. Unlike salmon, who are committed for life to a single waterway, the spawning location of eulachon can vary. Unfortunately, it's not just the Bella Coola that has seen a decline; all runs south of the Nass River, which stretches 236 miles along the British Columbia coast, have [suffered](#) significantly in the past 20 years. While the eulachon may find creative ways to adapt to their changing environment, the Nuxalk hope to address those pressures that have caused the fish to leave in the first place.

Because eulachon has never been considered a commercially valuable species, little governmental

attention has been paid to its decline. In 2011, however, an assessment by the Committee on the Status of Endangered Wildlife in Canada deemed eulachon on the central coast of BC "endangered." Legal frameworks in place led to automatic consideration for listing under Canada's Species At Risk Act (SARA), which [raised concern](#) within the Nuxalk community.



The range of eulachon extends as far north as Alaska. Here, fishermen use dip nets to scoop eulachon out of the water in Portage, Alaska. Credit: [Emma Forsberg](#)

Menzies explained that the concern stems from a place of contested jurisdiction in the management of eulachon. Were eulachon to be listed under SARA, the species would be brought under federal regulation. For the first time in history, the Nuxalk would have to obtain permits and permissions to fish, manage, or monitor the fish. Of Nuxalk management authority, Menzies said, "it became

really apparent that for First Nations... having eulachon as a listed species would essentially shut it down."

Eulachon have not yet been listed under SARA, and the Nuxalk Nation is seizing this moment to strengthen its management authority. Such a process will ensure that the tribe has a fighting chance at helping the eulachon return. Hi'ilei Hobart, professor of anthropology at UT Austin and Native Hawaiian, explained that "one of the quickest ways to disappear a people is to take away their cultural connections... And food is such a crucial part of that, so you take away a people's food, you start to erode at their identity." With community-driven research at its core, the Nuxalk Nation's Stewardship Office developed the [Sputc \(Eulachon\) Project](#) in order to revitalize the connection to eulachon, and create the conditions for both eulachon and people to thrive.

The Sputc Project engaged the community in order to develop a 172-page, full color book called [Alhquh ti Sputc](#) (The Eulachon Book). Originally intended to be an eulachon stewardship plan, the book evolved over several years, eventually transforming into a plan to fortify Nuxalk environmental management authority. The book still contains a stewardship plan, but situates it within the context of ancestral knowledge, governance systems, and decision-making processes. To gather material for the book, project team members held one-on-one conversations with knowledge holders, socialized within the community, and examined archival materials including historic recordings of elders. Just as the Nuxalk have maintained a profound relationship with eulachon for millennia, the project centered on relationship-building, trust, and accountability.

By gathering knowledge and fortifying its own management authority, the Nuxalk Nation is creating the conditions for Nation-to-Nation engagement with the Canadian government, when for too long it has been considered just one of multiple stakeholders in issues of conservation. By affirming the Nation's sovereignty and right to self-determination, this process could lead to more meaningful environmental and social action in the future. It can help rebuild the connections between

land, water, and people that have endured acute pressures from Euro-Canadian settler populations and governments.

Careful to avoid romanticizing Indigenous connections to nature, Hobart explained, "We have relation with our environment in such a way that obligates us to care for it. If you take care of the land, if you take care of your fish, if you take care of your plants, they will in turn take care of you."

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