

DECEMBER 2022

A Historic Year for kł c'pəlk stím

ONA Fisheries Information and Updates



The 2022 Salmon Run

In 2022 a record 663,253 sc'win (Okanagan sockeye salmon) entered the mouth of the Columbia River watershed and made it to Bonneville dam*. **It is the largest return of salmon in the Columbia River watershed since recording began in 1938.** This return not only serves to highlight the success of the Okanagan Nation Alliance's (ONA) leadership on salmon reintroduction efforts, but also the collaborative efforts and contributions by Sylx Elders, Traditional Knowledge Keepers, Nation community members, scientists, and partners. The Sylx Nation and those listed above have worked to ensure that fish passage can take place, ecosystems are restored and protected for salmon spawning and rearing, while implementing cultural practices to ensure the success of the work. Lim limpt to all of those that continue to do the work on the ground to ensure these successful runs are upscaled throughout the region!

Of the sc'win that returned to the Columbia watershed in 2022:

- 478,418 made it over Wells Dam in northern Washington
- Approximately 225,000 made their way back above Zozel dam, into the Canadian portion of the Okanagan sub-basin — which includes Okanagan River, Skaha Lake, and Okanagan Lake
- Of the sc'win that returned to the Okanagan sub-basin, approximately 98,550 were spawners (salmon that were able to lay eggs). This count on spawners includes those salmon that were taken for broodstock harvest and subsequent egg rearing at the kł c'pəlk stím Hatchery [see Conservation for Years to Come]
- On average about 28% of the spawners that make it over Wells Dam return to the Okanagan sub-basin to spawn. This year there was a 7% decrease in the percentage of spawners, in part due to a larger harvest that took place in the US.

It is estimated that 80% of this year's return was a result of the ONA's kł c'pəlk stím program, which includes habitat restoration, environmental flow needs and ceremonies, alongside ongoing continued leadership on salmon reintroduction on the territory.

* Dams such as Bonneville and Wells have cameras on the salmon ladders that provide counts on returning salmon. These numbers are further backed by a series of sensors (including PIT arrays and remote telemetry) throughout the Columbia that count both tagged juveniles going out and adults returning. The ONA also conducts acoustic surveys on the Canadian portion of the Okanagan sub-basin to further confirm numbers of returning salmon.

It is estimated that 80% of this year's return was a result of the ONA's kł c'pəlk stím program, which includes fry releases, habitat restoration, environmental flow needs and ceremonies, alongside continued leadership on salmon reintroduction on the territory. Specifically the ONA released 4.1 million salmon fry in 2018, which greatly contributed to these runs. Other contributing factors for the success of this run include cooler 2022 spring temperatures that made for salmon-friendly environmental conditions for migration, as well as high ocean survival rates.

sc'win Harvest for the Nation

Food security continues to be of utmost importance for the Nation. This historic sc'win runs has provided nutritious and culturally significant food sources for our Nation communities. An estimate of just over 81,000 salmon were harvested within the northern part of the territory — which included personal catches by individual Syilx fishers, as well as food and economic harvests by the Nation, alongside limited recreational harvests by other regional fishers. It is important to highlight that the economic fishery is directly tied to ensuring the successful functioning of a food fishery, as it offsets the substantial costs of running the food fishery, which includes everything from equipment and boats, to gas, staffing and distribution costs.

In July, sc'win harvest was strictly designated to Syilx Nation members. Early July food fishing opened up at the fishing grounds of "s̓x̓wə́x̓nitk̓w and n̓aylntn, with individual Syilx fishers catching nearly 11,000 sockeye. This number is based on a collection of self-submitted reports sent in by fishers to Okanagan Nation Alliance (ONA) staff, as well as monitoring efforts conducted by the Osoyoos Indian Band and ONA on Osoyoos Lake in August. An estimated 565 excursions by community members were recorded.

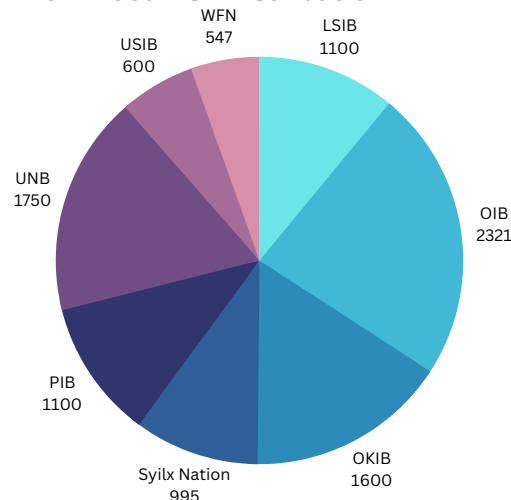
This is the largest modern recorded activity by individual Syilx fishers to date.

Starting in August, 2022, a food, social and ceremonial harvest, and subsequently an economic fishery, opened up. **This year the ONA assigned a Food Harvest Coordinator, to fulfill a role of working with Band Health representatives to assist and support bands with their communal fish harvests.**

Prior to the fishing season opening the Food Harvest Coordinator liaised with each band's health rep to determine the number of sc'win that the community would be able to process and distribute. In most cases we were able to meet these requests. We highlight that though our fishery processes and supply chains are standardized, a number of variables, including unpredictable weather and the fluctuations in catches, does have an impact on the timing of how fish was able to be delivered to communities. In some instances these variabilities were too challenging for band staff to work with, and thus impacted the number of fish that some communities were able to receive.

The ONA caught and distribute nearly 10,000 salmon throughout the Nation to members, while ensuring that there was an abundance of fish for the tmixw as well. This distribution of food fish equates to roughly 200,000 meals for Syilx community members. Over 51,000 sc'win were also caught as part of an economic fishery. As stated above, the capital made through the economic fishery are brought back to support the food, social and ceremonial harvest and to assist in the distribution of fish throughout the Nation.

2022 Food Fish Distribution



A smaller recreational fishery was also opened to the general public over August, totaling just over 7200 catches (9% of total catch).

Under 300 other fish of other varieties were caught during the harvest, including a bycatch of whitefish, suckers and northern pike minnow in the purse seine. Under 10 chinook salmon were also encountered as part of the recreational fishery and were released back when caught.

ONA ensures that Indigenous food sovereignty is the underpinning of sc'win harvests. The balance of the food, social, ceremonial catches with economic harvest is of upmost importance. These efforts show how important it is to work at reconnecting Syilx people to the land and waterways, revitalizing Syilx culture and language, all the while adhering to the CEC mandate in advancing Syilx Title and Rights that have existed since time immemorial.





Conservation for Years to Come

At ONA, one of our principal mandates is the conservation, protection, restoration, and enhancement of indigenous fisheries (anadromous and resident) and aquatic resources within the Syilx Okanagan Nation Territory.

As part of this commitment, ONA is building on the successes of this past year to upscale conservation efforts and sustain sc'win populations throughout the territory. **Central to our conservation efforts is the collection (also known as broodstock), rearing, and release of sc'win fry through the kł c'pálk stiř Hatchery.** This activity ensures that sc'win fry survival is maximized and that the largest number possible can make the journey out to the ocean and increases the chance for adult returns.

The bountiful return this year has meant a large number of spawners in Okanagan River, leading to a highly successful broodstock egg harvest in October. River and lake conditions over the summer and fall were good, and adult sockeye and eggs were healthy. **We were able to collect over 5.3 million eggs from an estimated 4430 sockeye salmon.** We are optimistic that egg-to-fry survival over the winter will break another record. It should be noted that the

ONA only take a sustainable amount of eggs based on the overall return numbers.

In addition to the sockeye egg take, one chinook was also caught, with 4,342 eggs harvested. Fry release dates in both the Okanagan and Upper Columbia will take place during the months of May pending water temperatures and other factors.

Another conservation highlight, of the past season, has been the number of salmon that have returned to the tributaries on klusxnitk^w (Okanagan Lake). Originally, sc'win returns to klusxnitk^w were going to be limited to a 100, this was because of an agreed upon technical study for Okanagan Lake through the Canadian Okanagan Basin Technical Working Group. Due to expected high returns Syilx advocacy and leadership pushed to open the fishway and allow all the fish to enter.

This uninhibited passage back of sc'win is critical as klusxnitk^w is considered a prime "nursery lake", with deep and cool water, alongside intact food sources, that are ideal for salmon spawning and rearing. Sockeye are in the lake for a year then leave back to the ocean. We observed spawning in Penticton Creek, Trout Creek, Peachland Creek, Trepanier Creek, Powers Creek, Mission Creek, Whiteman Creek and Equesis Creek, with individual counts ranging from just a few to over 1,000.



It is important to note that after years of studies at tu?cin (Skaha Lake), we know that the reintroduction of sc'win does not negatively impact the kokanee stocks in the region.

One location where the success of these returns has been recently recorded is on Trout Creek, near Summerland. This creek has seen over 400 Sockeye return to lay their eggs. **The success of this return is the result of a multi-pronged effort by ONA to ensure the tributary was prepared to have fish come back, and has included marine nutrient loading, which involves placing salmon carcasses from broodstock work back into waterways to encourage salmon to locate the waterway in the future.** ONA has also recently reinstalled riffles (shallow rapids) in the channelized creek to oxygenate the water and provide spawning habitat, while engaging traditional knowledge keepers to provide ceremony and cultural protocols to the work. This has been done alongside consistent salmon fry releases into the creeks in the spring that allow the salmon to imprint on the location and know where to return.



Our ancestors and Elders have taught the importance of preserving our traditions, customs, and language, including how this relates to our connection to salmon. Through events like the annual Salmon Feast we are able to come together as Syilx people — to celebrate, and give thanks for the return of salmon. Gatherings like this provide the opportunity to ensure that our language, songs and prayers remain an integral part of salmon restoration. We thank all of those Syilx people across the Nation who commit their time, energy and presence to ensure kł cǰáik stírh continues for generations to come.

To see some highlights from the 2022 Salmon Feast, please visit:
<https://www.youtube.com/watch?v=CXQBE6vwjrY>



Looking Forward - 2023

Based on current monitoring and data ONA is projecting that 160,000 - 185,000 sc'win to enter the Columbia River system and swim over Bonneville dam in 2023. If this was the case, this would be a low to moderate return. Of these returns, we would anticipate there will be about 16,000 to 24,000 Okanagan sockeye spawners (60% Osoyoos, 37% Skaha, and 3 % Okanagan Lake) – which includes those sc'win taken for broodstock. If this was the case we would recommend limiting the fishery to individual Syilx fishers and restricting the communal, economic, and recreational fisheries to ensure successful spawning. These are strictly current projections and we will continue to update them as further information and data are provided.

STAY CONNECTED AND LEARN MORE

Follow Us

Information is also shared through ONA social media platforms



For any questions or concerns

Please contact:

Chad Fuller, ONA Biologist

Tel: 250-707-0095 ext.104

E: cfuller@syilx.org

