

Reasons to keep the Skeena River net fishery open:

1. Run Size:

A 3.3 million run is the third largest Skeena sockeye return to Canada (RTC) in 25 years (since 1998).

If the run has average timing, which has happened only a couple of times in the last 10 years, the RTC will be 3.3 M. If the run is later, the RTC could well increase to close to 4M and exceed that in 2001 which was the 2nd largest in 25 years at a RTC 3.9M.

Ocean productivity is obviously high (we are also seeing record sockeye returns in Barkley and good signs of Fraser returns!), and we should take advantage of nature's bonuses when we are given them, just as we allow no fisheries at all when nature is parsimonious.

The present harvest rate (HR) rule of 33% at 3.3M return to Canada (RTC) provides a harvest of 1,089,000. At this HR rule, the escapement would be 1,911,000, or over twice what is needed at the aggregate MSY escapement (900,000).

In 2014, when the RTC was 2,832,138 and the escapement at Tye was 2.3 M, the escapement after the in-river fisheries was 1,646,037. The marine commercial harvest was 505,467 at a marine commercial HR of 29%. The in-river catch was 680,625.

The link below is for a video we produced that was taken at the Lake Babine spawning channels showing the wasted sockeye pounding the locked Spawning Channel gates at Thanksgiving 2014. That was a 2.8 million return with a harvest of 29%. This year, we are going to have a smaller catch on a larger run – at a time when the Minister is telling the Canadian public we are in the middle of a salmon crisis!

<https://www.youtube.com/watch?v=uBP05pAwffE>

2. Harvest Rate:

At a run size of 3.3 Million sockeye, the allowable Harvest Rate on the RTC is 33% for the marine commercial fishery, including the EO portion of the marine allocation.

Presently, the **HR to July 30 is 21%** - this includes an estimated seine catch of 80,000 for July 29+ 30 and an estimated EO harvest of 15% to the EO fisheries.

At a harvest of 800,000 (marine and EO), the escapement will be 2,500,000 – if the RTC remains at 3.3M. This is over 2.7 times the MSY aggregate escapement number of 900,000. The spawning channels will be shut and the danger of disease by stressed and crowded fish will be extreme.

The present estimated catch would create a HR of 18% on the estimated run size of 3.3M, just over half the allowable 33% for our Marine Commercial fisheries.

	Escapement	Catch+Esc	Catch	HR	
Harvest Rate July 10 July 30	1,924,095	2,436,072	511,977	21%	
HR comm+EO est July 10 July 30	1,924,095	2,512,869	588,774	23%	
Harvest Rate June-July 30	whole season to July 30	2,209,381	2,721,358	511,977	19%
HR comm+EO est June -July 30		2,209,381	2,798,155	588,774	21%
HR comm est (800K)+ EO to season est run size (3,300,000)		3,300,000	800,000	24%	

Even if the harvest increases to 800,000, the HR on the RTC of 3.3M would still only be 24%, much less than the 33% allowed under the harvest rule.

3. Catch Per Unit Effort (CPUE)

The size of the commercial salmon fleet fishing in the North this season has been significantly reduced compared to recent years, due to both the Minister’s PSSI closure announcements and the ultra - conservative management of the Skeena since 2007.

Fleets size was also reduced in the first week of the “season” due to the very late timing of the Minister releasing the IFMP. Gearing up and licencing a gillnet vessel costs \$10,000+, a seine vessel is \$40,000+; this is a cost that fishermen could not afford without assurance of an opening so many were not ready for the first week of the fishery or could not come at all. Further, many of the Indigenous commercial harvesters were prevented from fishing the first half of the season due to paperwork delays from loss of commercial fishing Transport Canada certification after the 2021 closures and online licencing delays.

This smaller fleet, even with expanded fishing time, has a catch per unit effort (CPUE) that is vastly reduced below the norm due to the selective harvest restrictions in 2022. This means that the per hour harvest of sockeye per vessel is much lower than in the past.

DFO’s 2022 PSSI restrictions have decreased the CPUE of the already diminished fleet:

Fishing in a smaller area so that selective netters cannot fish in their preferred areas where they have the appropriate nets (colour, mesh size, hang ratios and net depth – 60s regular mesh vs 90s Alaskan Twist with a weedline).

Gillnets are highly selective, and gillnet fishing is highly specialized - they are built to fish in certain areas and conditions, and in specific ways within those areas/conditions. Fishing with gear built for one area,

by a fisherman with expertise in fishing in that particular area, will result in a much higher harvest than when that same fisherman fishes with inappropriate nets in an area which they are not used to.

Seine vessels have been restricted to fishing for sockeye in the river mouth for most of the season, meaning that only a few vessels can do well each tide. They are also hampered by being squeezed into a small area with the gillnet vessels for most of the opening. Fishing in a larger area allows the fleet to spread out, giving each vessel more opportunities to set through the day, and to further maximise those sets by also harvesting Skeena pinks which have been coming in sufficient numbers.

As with the gillnet fleet, they have been told that the reason for the limited fishing area is lack of budget for hail patrols – this is simply unacceptable given that we have been told that Skeena sockeye is now being managed with “enhanced monitoring” under PSSI which has a \$647 million budget!!

Short Sets and short nets: DFO has reduced the harvesting power of every selective netter as they are having to soak their nets for 20 minutes for a full fishing time of 40 minutes.

There was no reason for this extremely tiring style of fishing: it reduces CPUE as many areas require a longer soak time depending on the area and the tide to maximize catch, and there were few non-retention by-catch to avoid or release before August which is the purpose of the reduced soak times.

Again, fishing with a gillnet is a highly specialized method of harvest. These are harvesters who have spent their lives learning how to fish with specific types of nets in certain areas – cutting those nets in half and limiting the setting time to 20 min completely changes how a net fishes, and that can additionally be changed depending on the location, tide and weather in which it is being fished. There is a significant learning curve to maximizing catch with these changes, and that has further reduced catch effort while harvesters adjust and learn in a very short time period and under trying situations.

It should also be noted that for those vessels fishing in outside areas using a 1 metre weedline, having to set and retrieve their nets so quickly is very dangerous. We have had several bad accidents on the north coast, including a death, from the use of dropped becket weed-lines, and to require short sets and short nets at a time of little to no bycatch is courting someone’s misfortune. It also reduced catch.

Age: Due to the already extreme conservation regime in BC, the remaining fishermen left, whether gillnet or seine, are aging with little replacement of older fish harvesters with youth. Many seiners could not come to fish this year because they could not raise a crew with the required certificates, thus reducing the numbers of seine vessels, and of those who are fishing, many are short 1 or 2 crew members. Gillnet vessels are also fishing with less crew – many are manned only by the skipper. This slows fishing down, especially after a few back-to-back openings

Instead of opening the season as soon as it was obvious that the run was large enough to meet escapement, DFO delayed, therefore forcing all openings to occur in a constricted period of time. The Advisors advised that DFO open earlier and spread the openings over 6 weeks so that fishery impacts

would be spread over a longer period of time. This kind of fishery would have resulted in lower weekly impacts on differing stocks, and give all the old selective net fishermen more time off between openings.

ITQ management: ITQ management, which is pushed by DFO as a conservation harvest technique has led to fewer sockeye being caught by the seine fleet as not all the quota has been leased out each week. Out of a weekly seine TAC of 47,000, only 33,000 were caught, not due to effort but because 14,000 sockeye were not leased while vessels who had already caught their quota.. An alternative to this issue would be to divide the quota up into weekly increments and those who are available to participate in the fishery each get an equal division.

4. Escapement numbers remain high

Daily and weekly escapement numbers remain high even with the full fleet (selective netters, seiners & EO harvesters) fishing. The daily harvests hardly impact the daily escapements. Since July 15, the lowest daily escapement was 54,000, while the average daily has been 106,000. Numbers remain very high, which could be signalling a larger return than the 3.3 Million estimated last week.

5. Integrated Fisheries Management Plan (IFMP)

The IFMP did not give a hard date of August 5th but says: “implement season end date in early-August to avoid later timed wild stocks”. DFO will not be ignoring the IFMP if they allow sockeye fisheries beyond August 5th.

6. Impacts on Babine Late Wilds (BLW)

It is not certain yet whether the Skeena aggregate run is late or on time, so a pre-determined “end fishing” date of August 4th for selective netters and August 5th for seines is not reasonable. If the run is late, the later timed wild stocks will be also be later and fishing past August 5 will not impact them. On the other hand, if the run is on time, the productivity of the Lake Babine rearing stocks should be similarly high for all Babine stocks. Therefore, a small increased incidental catch of Babine wild lates will not negatively impact the spawning stock, even if the run is on time.

7. Harvest Rate(HR) impacts on Babine Late Wilds (BLW)

Data that the Union has in its archives shows that in 2016 we had between 200 and 274 gillnet vessels who fished from the second week of July into the second week of August for a harvest of 107,406 sockeye. Thirty-four seine vessels fished in the second and third weeks of August and harvested 23,548 sockeye. Total sockeye catch for both gear groups from week 7-2 to 8-3 was 130,954. RTC in 2016 was 1.356M.

The August calendar in 2016 is the same for 2022– with the first week of August in both years ending on Saturday August 6th.

In 2016,

- 62,719 or 48% of the sockeye harvest was caught in August in the weeks 8-1 to 8-3
- 24,581 sockeye (19% of the total harvest) were caught in the (8-2 and 8-3) second and third weeks of August

In 2016, the Canadian ER on Babine Late Wild sockeye was 17%, hardly a cause for concern. Depending on productivity, DFO reports indicate that Umsy for Babine Late Wilds is between 45-63% with a mid-point estimate of 59%.

The present Harvest Rate on Babine Lates over a 3 week period July 24-August 13th will remain far lower than 45%, the lowest of the Umsy range. At present, the weekly HR for last week was 37% - based on a seine catch from July 24 to July 30 of 122,447 sockeye. (The weekly HR would be lower if seine catches were lower – but we don't have the catch beyond July 28th)

8. Bycatch indices

Coho: The coho index as of July 25 was larger than the average since 2000.

Springs: Well above the decadal average and should no longer a factor as they are at the end of their run timing, which is also indicated by the low daily index points.

Pinks: Above 2000-2020 even year average.

Steelhead: The Steelhead index is at 23.76 on July 31. This is not a dismal index, in many years in the past 3 decades, the index has been lower than this, but the aggregate index by September 15 has been within MSY.

For example, in the past decade July 31, 2021, the index point was 6.35 and the final escapement to September 15th was less than 8,000 and clearly in the red zone. The 2020 July 31 index point was 26.7 and, according to the *SAAT Meting #3 Supporting Documents*, distributed by Trevor Rhodes FOR:RX,, the September 15 run size estimate was 15,000 or in the yellow zone. In 2019, the July 31 index point was 21.44 and the Sept 15 escapement was also in the yellow zone - around 18,000 steelhead. However in 2006, the index point was 11.9 on July 31st, yet according to the *SAAT Supporting Document*, the September 15th abundance was around 38,000, well in the green zone.

The MOE information shows that there can be no certainty on run size until August 15. In low run years, the August 15th data is a good predictor of final run size, but in good years the August 15th data under predicts the run size. 2006 is a great example. The run size ended up at 45,000, well in the green zone, but as the run was late, by August 1st, the index point was predicting 15,000 in the yellow zone. By August 15th, it was predicting a run size of around 38,000 still well under the final 45,000.

The selective net and seine fleets should not be curtailed from fishing due to any of the bycatch indices which either are at levels exceeding the average index for the species as in the case of spring, chum or coho, or are of no use for predictions as for steelhead.

9. Mortality rates:

I refer you to a report written by the Union regarding mortality rates on coho and steelhead which refers to the latest studies which were done in the mid-2000s. Steven Cox-Rogers' paper on Mortality Rates in the Skeena in both the gillnet and seine fleets, cited in our Mortality Rate paper, is particularly extensive. I refer you to both.

Reasonable mortality rates should be attached to the Skeena net fisheries. We believe that a mortality rate on coho of 20% and on steelhead of 12% for selective netters and 4% when brailing for seines is reasonable.

“The fatality rate, for example, for coho caught and brought on board a vessel in the Skeena River selective net fishery (FA 4-15 and 4-12) using the tool of short sets - half nets (soak time 20 min, set time 40 min) and laminar flow revival boxes was 26.4% in 2001, 24% in 2002, and 15.6% in 2003. The fatality rate for steelhead in these same fisheries was 17.7% in 2002 and 7.6% in 2003 (pp 12-13 S. Cox-Rogers, *A Brief Comment on the Structure of the Current Skeena Management Model and Some of Its Key Inputs*, DFO Unclassified Memorandum, June 20, 2007). The reduction in fatality rates from 2001-2003 is likely the result of increased practice with handling techniques” *UFAWU Selective Fishing Proposal 2022* p 2 .

10. Effort – fleet sizes

Our prediction – The fleet size will not increase, if anything it will begin to diminish. If Johnstone Strait looks like it will open around August 15th, the majority of the gillnet fleet who have D & E licenses (50+? Boats) will leave well before August 8th. Most are exhausted and the long run down is something that they will want to get over, plus they will have to put their JS nets on and prepare for fishing. Most of the seines will also want to run south at that time for similar reasons.

If JS opening is not till the 20th, then some of the gillnet and seine fleet with south licenses will stay for a few more days.

11. Economic impacts:

Direct economic impacts are to the fish harvesters, tendermen and shoreworkers who all depend on the fishery to make a living. This sockeye abundance should make a positive impact for more than 3 weeks. Even without processing, there are more shoreworkers and tendermen employed this year than in the past 3 years. Fish harvesters, it goes without saying, are finally earning themselves out of debt. An extra week would make a positive contribution to most fishermen's bank accounts.

Ancillary businesses have been very busy supplying the fleet. From machine shops and net lofts to taxis and grocery stores, Prince Rupert is feeling a sigh of relief as fishing income is being spent.

Local First Nations' communities have people fishing - both deckhands and skippers, working on shore and packing. The positive economic impact will be larger in these communities than in Rupert. And

extra fishing time is even more important for the local First Nation harvesters who were unable to fish the first 5-6 days of the season due to the late announcement that there would even be a fishery!

Infrastructure: Fishing vessels are not the only ones who are having a difficult time finding crew/employees. The few remaining buyer/processors are working with limited employees because they are also unable to plan for pre-season hiring, and to guarantee work that lasts more than a couple of weeks. There are only two buyer/processors who have operations able to participate in the salmon fishery this year.

As with gearing up fishing vessels, there is also a high cost with preparing for a salmon season for buyers – packers, an essential part of the gillnet salmon season, must be hired ahead of time, and require crews of 3+ per vessel. With only 2 processors who have packers buying salmon in Prince Rupert, this has caused day-long delays for offloading and icing up vessels. Fishing vessels are having to quit fishing early during the opening to get in to port to deliver so that they have time to get anything else done on their day off. Gillnetters are having their ice delivered to them in totes by truck, and have had to quit early because they ran out of ice during the fishery – on fishing days with catches of 1000+ sockeye.

In conclusion, the Union, for the above reasons, is requesting that the Skeena be held open for seines and selective netters until August 12th. If the weekly HR starts climbing above 45% (Umsy BLW) then the days fishing could be reduced, but with present weekly HR rates, this is not likely to happen.

The Minister can't have meant to place the same restrictive rules on an aggregate run which was say, 300,000 over the required escapement and a return which is 1.8 million over the required escapement.

It does not make sense to stop salmon from being harvested when bycatch is healthy and wild sockeye runs are being impacted so minimally. We would argue that the fleet should continue to harvest after August 12th if the "Minister" could be persuaded. There are around 60- 75 non-D or E licensed selective netters who could continue to harvest selectively and if they fish for an additional 2 days a week, as long as the run stays strong, their impact would be negligible on both bycatch and on incidental sockeye harvest. I imagine the whole seine fleet will run down to JS and not be available to fish the Skeena after the 10th.

Respectfully,

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