



# Interior Fraser Coho - Update

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FN Forum

April 20-22, 2021

# Interior Fraser River (IFR) Coho

## Stock Status & Updates

- Interior Fraser Coho are a key constraint on management of southern BC fisheries; proposed 2020 measures are for continuation of precautionary management approach similar to pre-2014 for southern BC fisheries.
- ***The objective for Interior Fraser River is to manage Canadian fisheries in a highly precautionary manner with fisheries management measures similar to those in place prior to 2014. This approach is expected to achieve an overall exploitation rate in Canadian waters within the 3 – 5 % range.***
- Additional work required to develop status determination framework Strait of Georgia and Lower Fraser Coho management units.
- Several projects proposed/underway to address current data limitations and inform management for Strait of Georgia and Lower Fraser Coho management units.



Photo by: Shane Kalyn

# Interior Fraser River (IFR) Coho

## Fisheries Planning

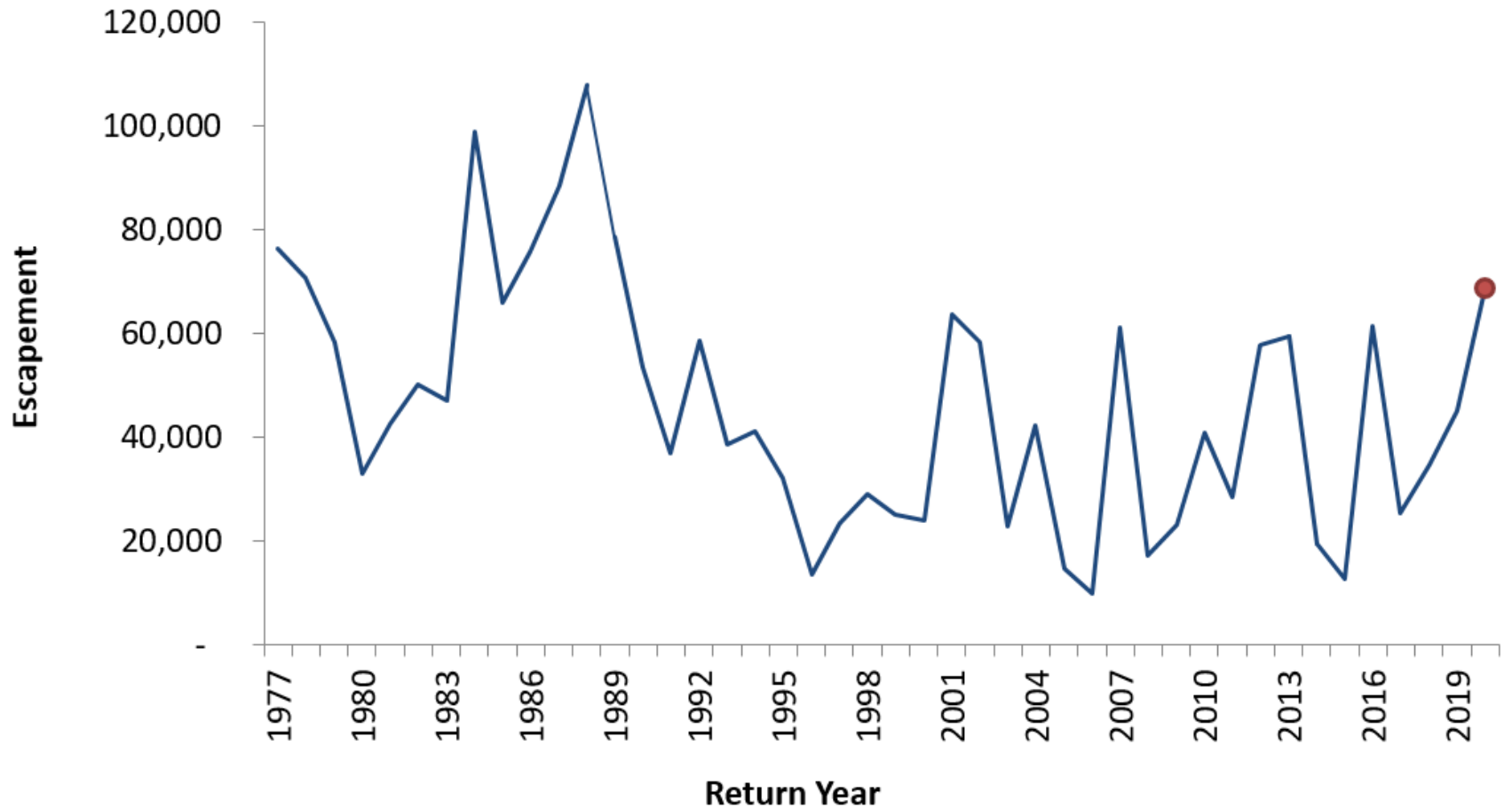
- Abundance-based management framework in place for Interior Fraser River Coho.
  - 2021: *LOW* status expected as escapement and marine survival need to be above the Low/Moderate threshold in 2018, 2019, and 2020.
- *LOW* status: 20% ER cap for US and Canada combined (10% CAN and 10% US)
- Each country's share may be managed to lower ERs based on domestic planning needs.
- Canada implemented 3-5% ER on Interior Fraser River MU in 2020.

# Interior Fraser River Coho - Status

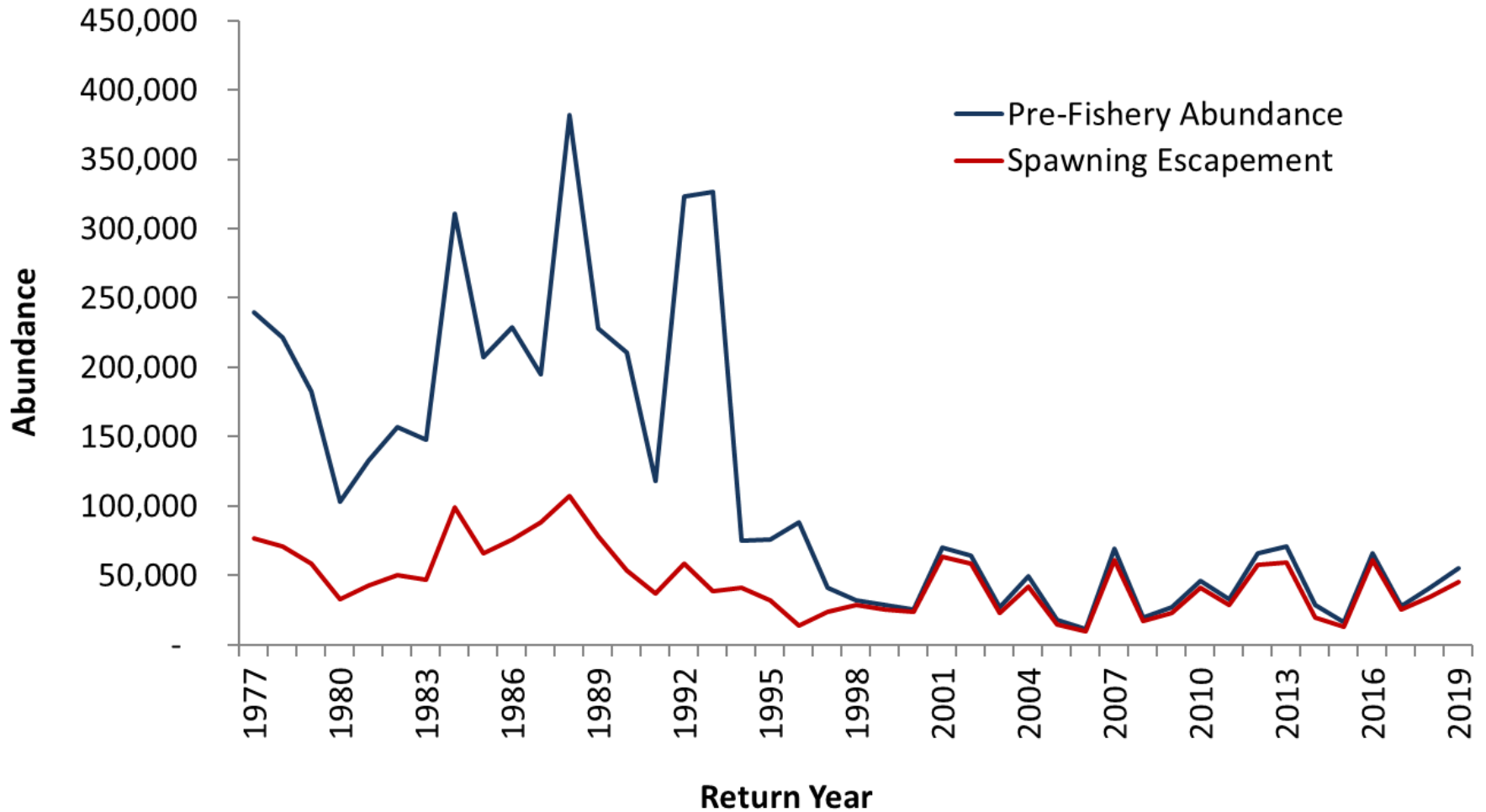
Pacific Salmon Treaty reference points and exploitation rate caps:

	Low	Moderate	Abundant
<b>Survival (CWT Indicator Programs)</b>	$S \leq 0.03$	Three consecutive years $0.03 < S \leq 0.06$	Three consecutive years $S > 0.06$
		and	and
<b>Escapement</b>	Monitored in CU's and subpops but no thresholds	Three consecutive years: · Half of subpops in each CU > 1000; or · Moderate Aggregate MU esc. objective	Three consecutive years: · All IFR subpops in each CU > 1000; or · Abundant Aggregate MU esc. objective
<b>ER cap (US/Can)</b>	<b>0.20</b> (0.10/0.10)	<b>0.30</b> (0.12/0.18)	<b>0.45</b> (0.15/0.30)

# Interior Fraser River Coho - Escapement



# Interior Fraser River Coho – Total Abundance



# Interior Fraser River Coho - Status

Escapement:

Return Year	Short Term Sub Pop Goal*		Short Term Escapement Proxy Goal	Actual Escapement	Goal met in three consecutive years
2014			22,731	19,442	
2015			25,758	12,879	
2016	no	or	27,414	61,370	no
2017	no		30,063	25,504	no
2018	no		29,781	34,737	no
2019	no		29,388	45,221	no

\*three consecutive years of greater than 1000 in half the sub populations

*2020 preliminary estimate for Interior Fraser River Coho is 68,500*

# Interior Fraser River Coho - Status

Marine survival:

Return Year	Survival	Short Term Marine Survival Goal	Goal met in three consecutive years
2014	2.1%	> 3.0%	
2015	0.8%	> 3.0%	
2016	1.4%	> 3.0%	no
2017	1.1%	> 3.0%	no
2018	2.0%	> 3.0%	no
2019	2.1%	> 3.0%	no

*2020 preliminary assessment for Interior Fraser River Coho is not yet available*



# Fraser Coho – Salmon Outlook

Conservation Unit / Sub Unit	Average Escapement	LRP / LBB	Management Target	WSP / COSEWIC STATUS	2021 FORECAST OUTLOOK
<b>Interior Fraser Coho</b>					
Aggregate includes 5 CUs	34,728 (1998-2019)	~20,000*	PST Operational Control Points		<b>43,900</b>
<b>Lower Fraser Coho</b>					
Aggregate includes 3 CU					1

\* Under review, ~20K escapement target based on work of IFC recovery team.

# IFR Coho – Post season accounting

- Has Canada been meeting the management objective of 3-5% ER for IFR Coho?
- Current IFMP objective based on domestic planning models (marine and Fraser)
- PSC FRAM model generally produces higher ER than domestic planning models; models use different methods/assumptions
- Both the FRAM model and CDN domestic models provide projected exploitation rates, not estimates of actual exploitation rates
- Preliminary analysis underway to compare post-season outputs of models and potential reasons for differences; further discussion with technical wg will be required to explore differences and identify recommendations.

# Strait of Georgia Coho Assessment

- **Purpose:** to assess whether stock composition from fishery information can be used to assess wild Coho returns to the Strait of Georgia.
- **Plan:** fishery sampling and analysis using new Parental Based Tagging (PBT) along with regular DNA to partition hatchery origin Coho from natural origin Coho within a management unit.
- **Sampling:** September fishery data from the northern Strait of Georgia (Area 13 and 14) and escapement information from ECVI hatcheries.
- A single troll vessel attempted to collect samples with little success in 2020. For 2021, Department is proposing FN FSC and/or recreational fishery retention of marked and unmarked Coho in northern GST in September 2021 to obtain higher sample rates (target = 1,000 Coho).

Based on stock composition data from September 2014, a mixed stock sample of 1000 Coho in the proposed time and area is projected to impact about 10 IFR Coho as indicated the table below.

Stock Management Unit	% in September 2014 sample; n=156	Number based on maximum expected catch of 1,000 Coho
Georgia Basin (ECVI and Mainland Inlets)	88%	880
Lower Fraser	4%	40
Interior Fraser	1%	10
Puget Sound	5%	50
Other	2%	20
Total	100%	1,000

# IFR Coho – IFMP Feedback

## First Nations:

- Requests that Canada does not exceed a 3-5% exploitation rate on IFR Coho.
- Reduce the daily limit to 1 hatchery coho/day and institute an annual limit of 10 or less.
- Fishery independent compliance and catch monitoring be implemented.
- Does not support the expansion of hatchery production to subsidize commercial and sport fisheries.
- Supports management in accordance with IFC Recovery Plan's long-term objective (1000 spawners min. per 11 sub-populations).
- Interest in harvest on tributaries throughout the Lower Fraser (terminal).
- Reduce all impacts on Interior Fraser Coho to ensure successful migration to the Big Bar Slide and opportunity to migrate beyond the slide

## Recreational:

- Requests an increase to the allowable IFR Coho ER for planning of domestic fisheries above the status quo (3-5%) range in 2021.
- Revised recreational fishery plan submitted outlining adjustments to wild Coho retention in Southern BC with intent to redistribute (not increase) current modelled IFR Coho exploitation rate.

## Marine Conservation Caucus (MCC):

- Recommends that the domestic Exploitation Rate cap of 3% to 5% for IFR Coho remains in place until a higher productivity period has been repeatedly demonstrated over two to three generations.