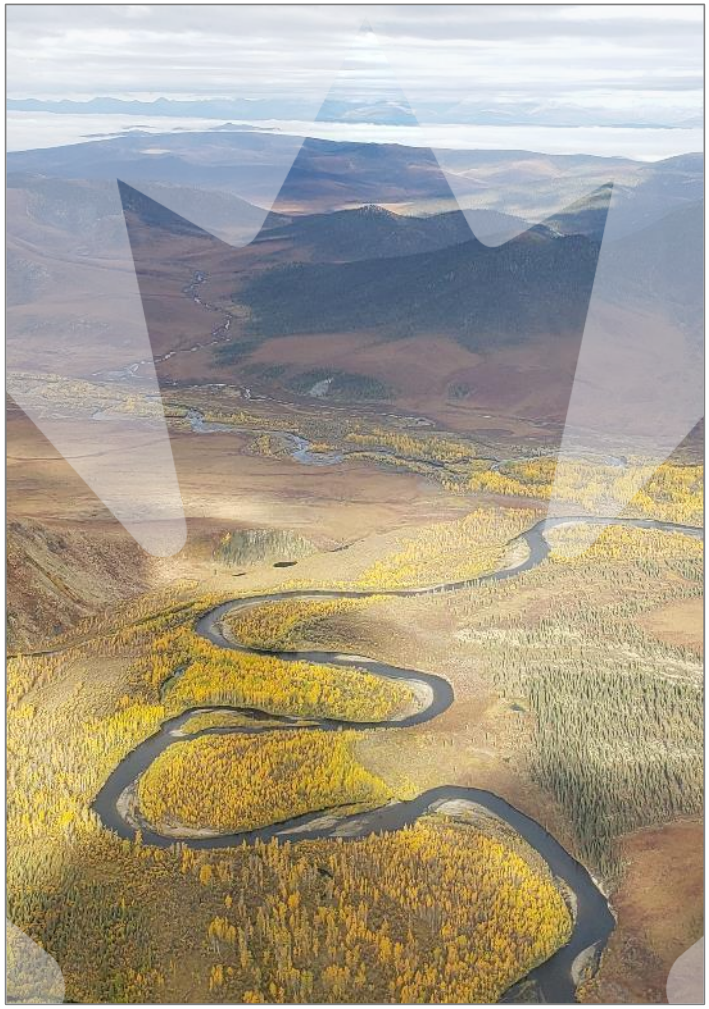
# 2021 Porcupine River (Fishing Branch) Chum Salmon Post-Season Review: Canadian Reporting



Presented to:

Yukon River Panel

Yukon River Treaties and Fisheries

January 27, 2022

# 2021 Canadian-Origin Chum Salmon Porcupine River (Fishing Branch)

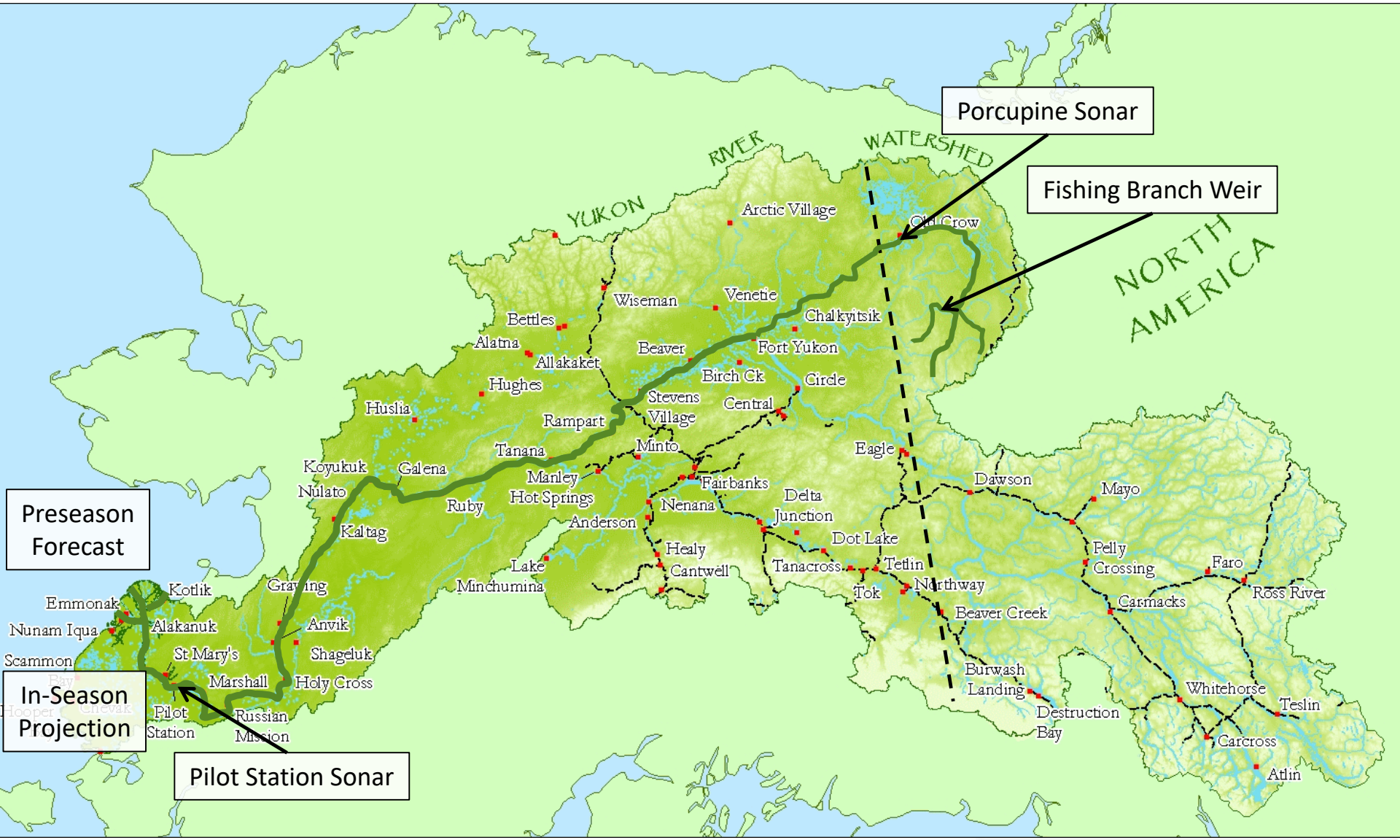
## Presentation Outline

1. Time Series of Assessment and Associated Management
   - Preseason
   - In-Season
   - Post Season
2. Post Season Assessment Summary
3. Review of Environmental Conditions



Illustration: Dr. Paul Vecsei

# Porcupine River Chum Salmon Assessment Sites



# 2021 Chum Salmon Fishery Management Summary - Fishing Branch River

| 2021 Pre-Season Forecast | | | |
|---|---|---|---|
| **Fishing Branch Forecast*** | **Total Allowable Harvest** | **CDN Harvest Guideline*** | **Anticipated Fishery Opportunities** |
| 22,000 to 30,000 | N/A<br>Harvest Shares not identified in *Yukon River Salmon Agreement* | 0 to 2,560 | First Nation Fishery TBD<br>Public Angling Closed<br>Commercial N/A<br>Domestic N/A |

*The Canadian harvest guideline assumes minimum spawning target of 22,000 and uses a 32% Canadian harvest share guideline.

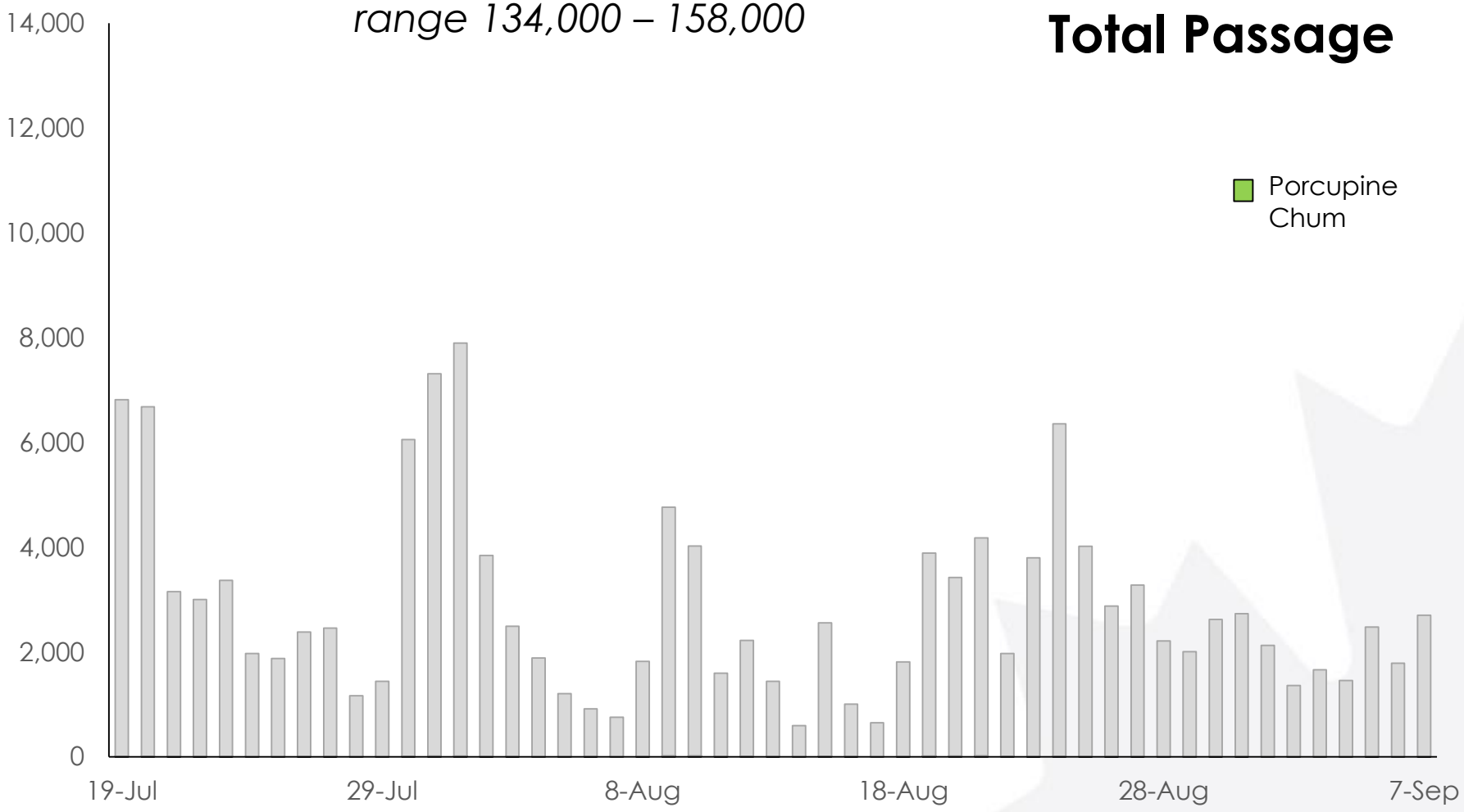
| 2021 Revised In-Season Projection (as of July 21) | | | |
|---|---|---|---|
| **Fishing Branch Forecast**** | **Total Allowable Harvest** | **CDN Harvest Guideline*** | **Revised Fishery Opportunities** |
| <22,000 | N/A<br>Also: 0 | 0 | First Nation Fishery: No Harvest Allocation |



**Fishing Branch Interim Management Escapement Goal: 22,000 to 49,000

# Pilot Station – 2021 Daily Chum Passage Estimates

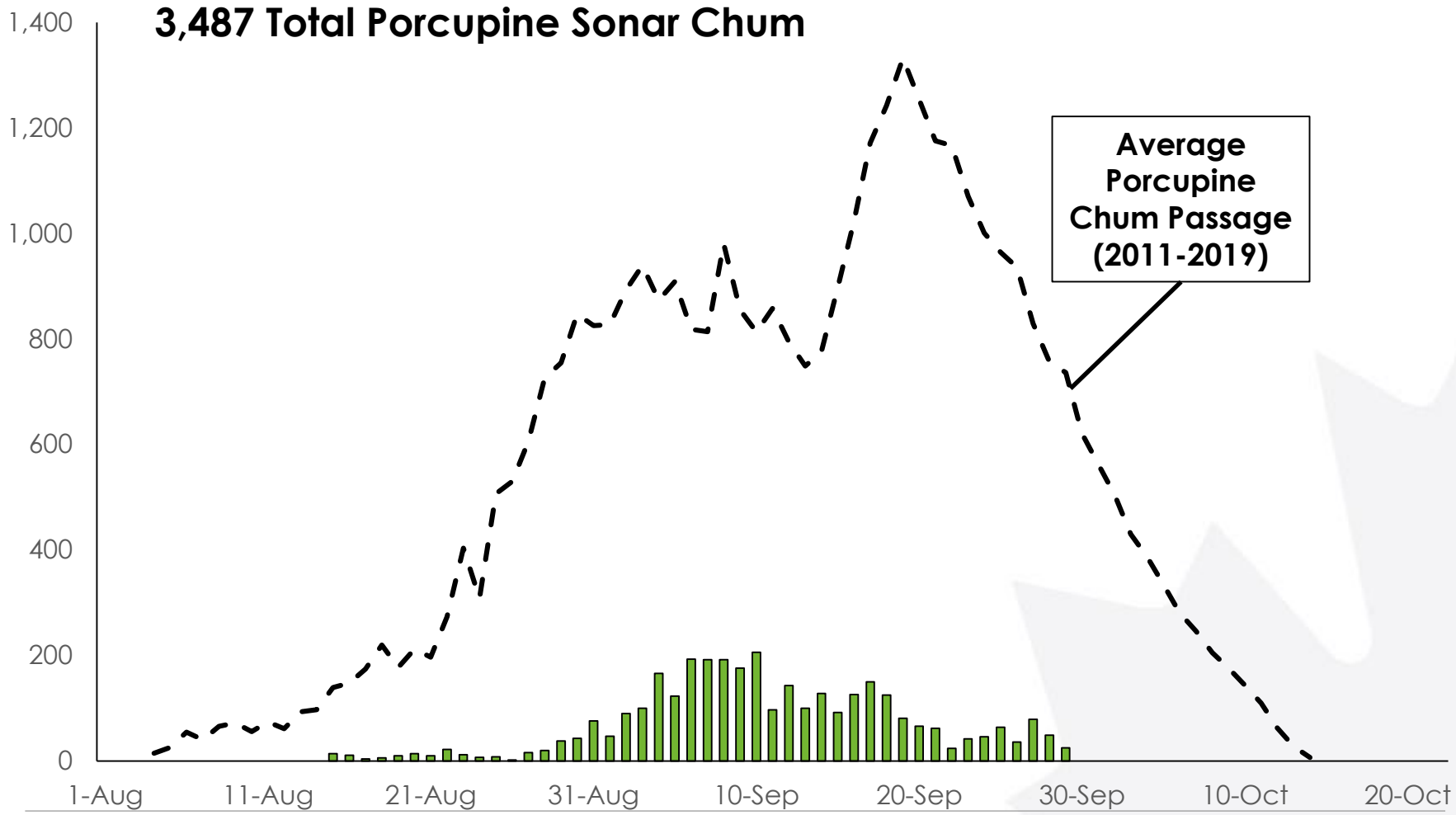
146,000 Total Chum (US & Canada)
*range 134,000 – 158,000*






**preliminary*

# Porcupine Sonar at Old Crow – 2021 Daily Chum Passage Estimates



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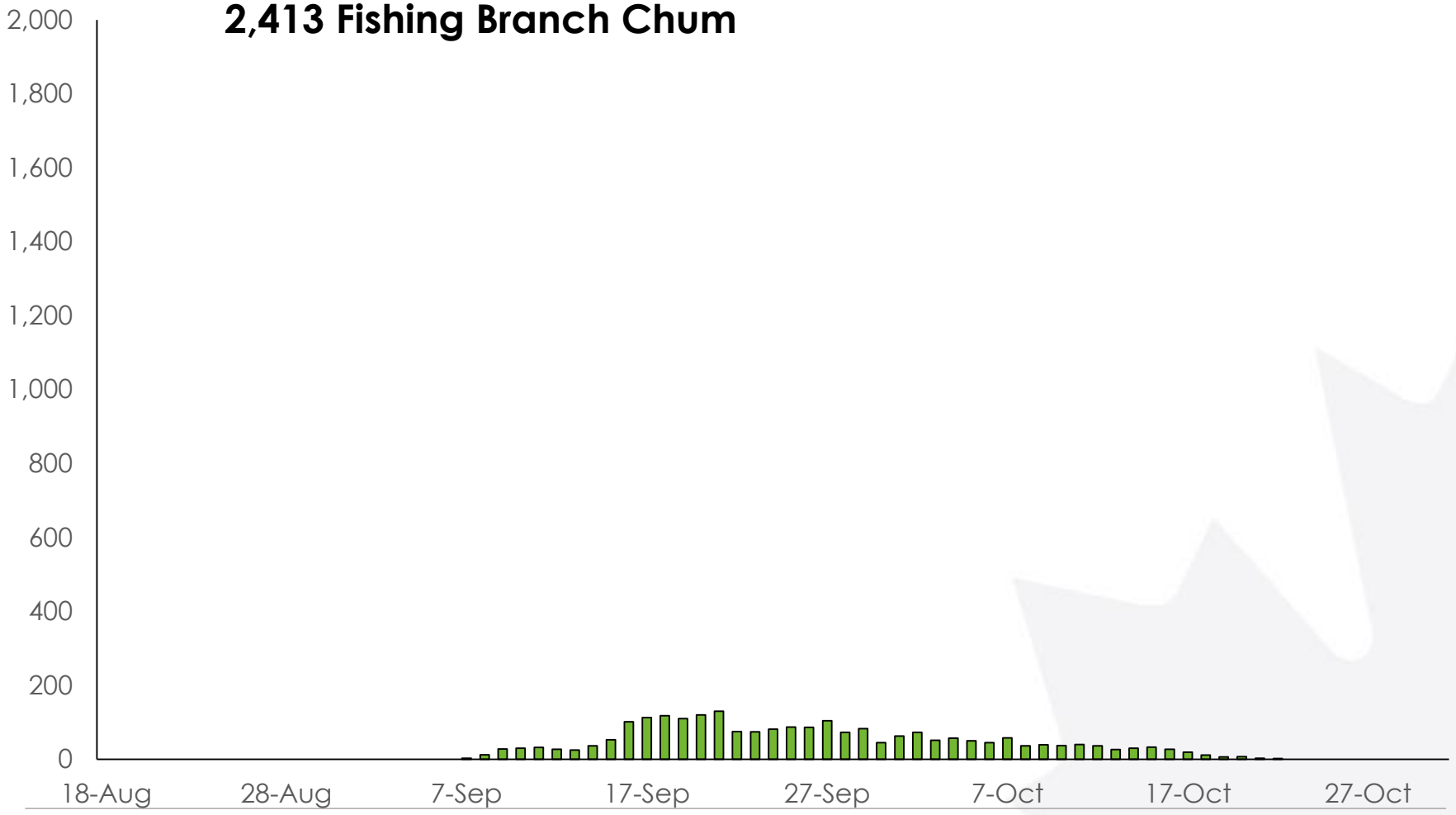
# Fishing Branch – 2021 Daily Chum Passage Estimates (Spawning Escapement)



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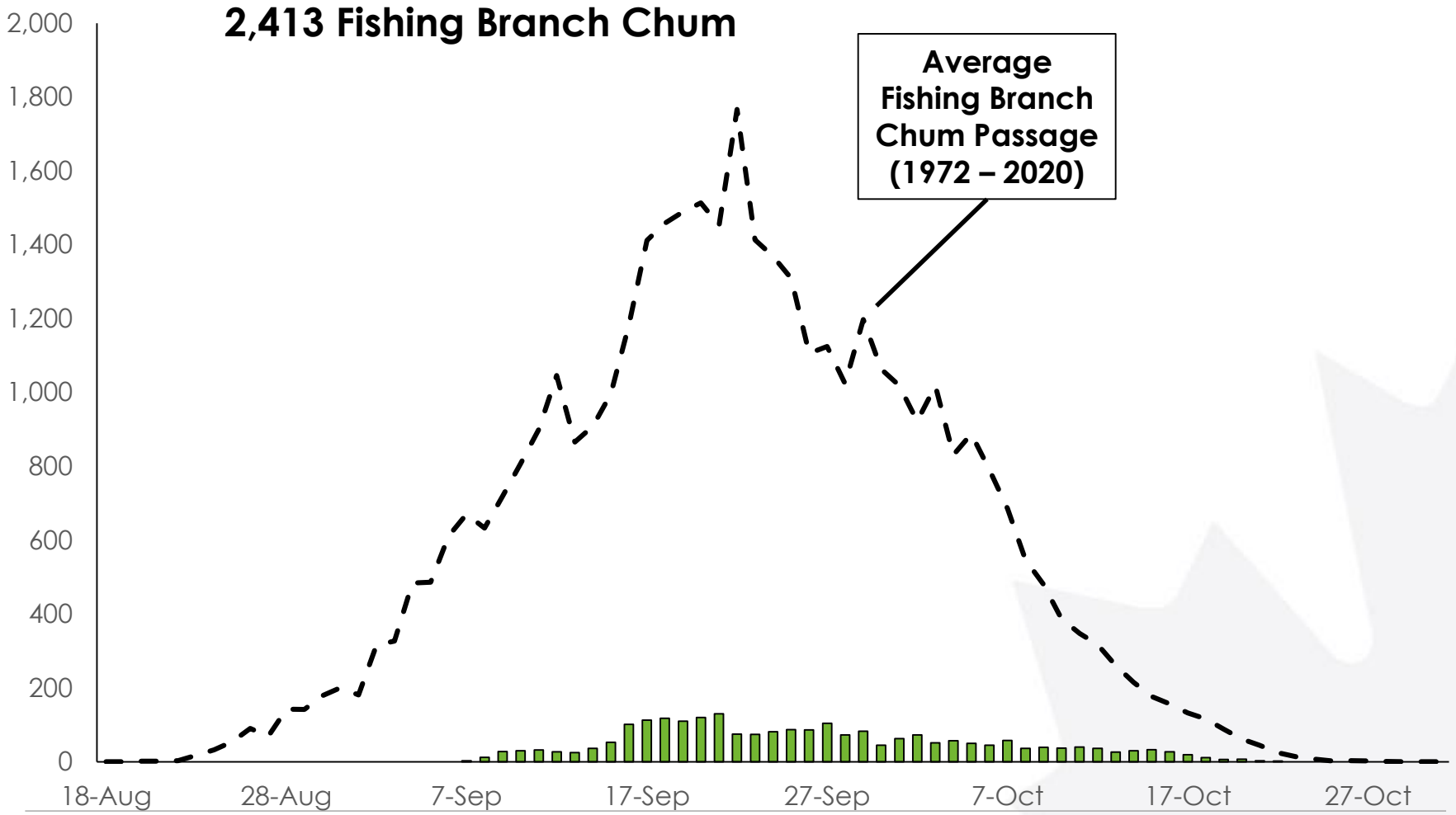
# Fishing Branch – 2021 Daily and Average Passage Estimates (Spawning Escapement)



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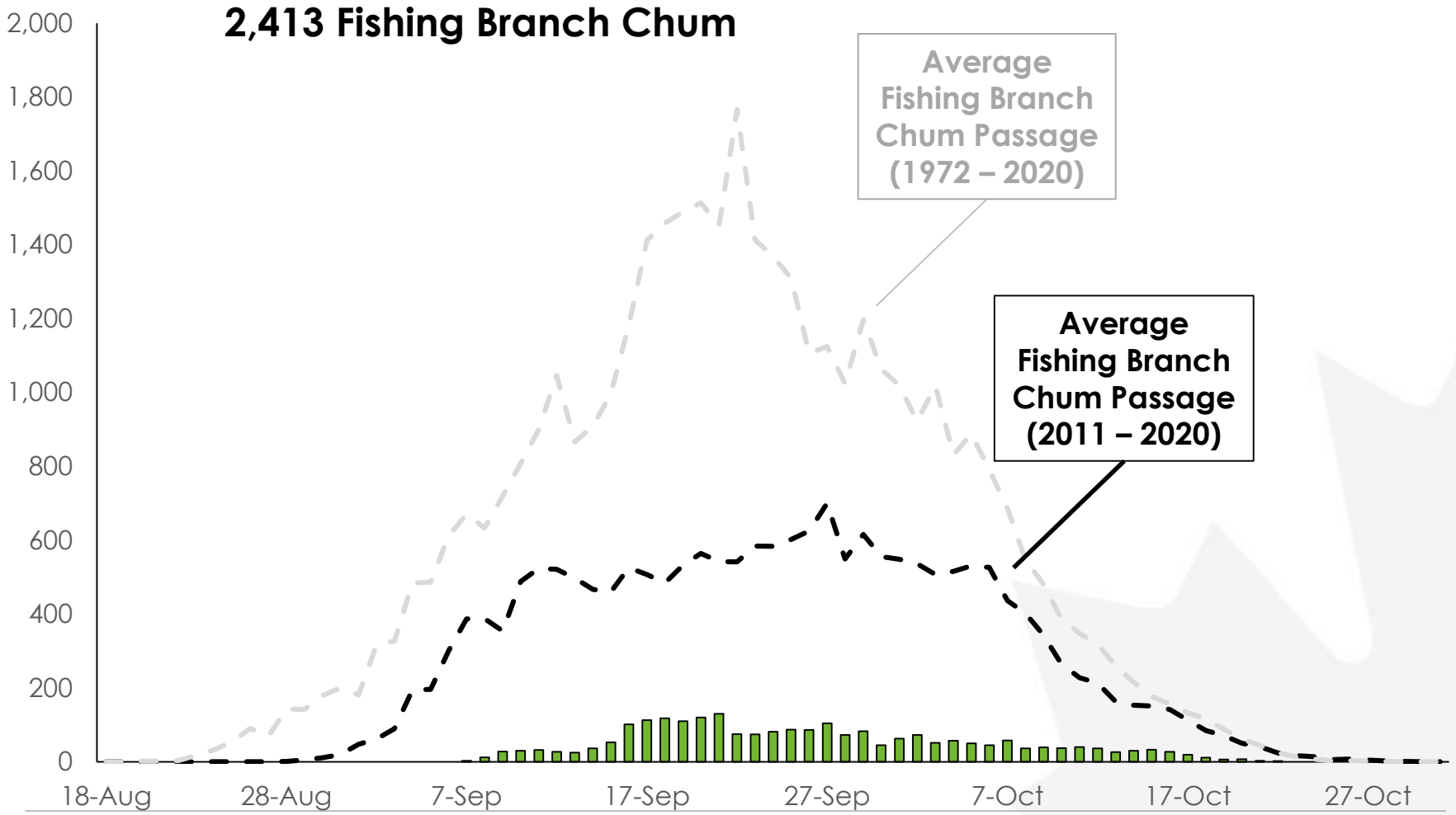
# Fishing Branch – 2021 Daily and Average Passage Estimates (Spawning Escapement)






**preliminary*

# 2021 Chum Salmon Fishery Management Summary - Fishing Branch River

## Federal (Fisheries and Oceans Canada)Chum Salmon Management Actions:

- Chum retention prohibited in the public angling fishery
- Co-developed Porcupine Chum Update with Vuntut Gwitchin Natural Resources.
- In-season information provided to Vuntut Gwitchin First Nation and Renewable Resources Council; hosted in-season assessment and management conference calls.

## Yukon First Nation Government (Vuntut Gwitchin Government) Fishery Management Actions:

- Partnered with DFO to deliver Porcupine and Fishing Branch Assessment projects.
- Considered in-season information and updates and advised fishers to not harvest chum salmon.
- Fish and Wildlife manager provided regular updates to First Nation citizens through radio programming and written updates.

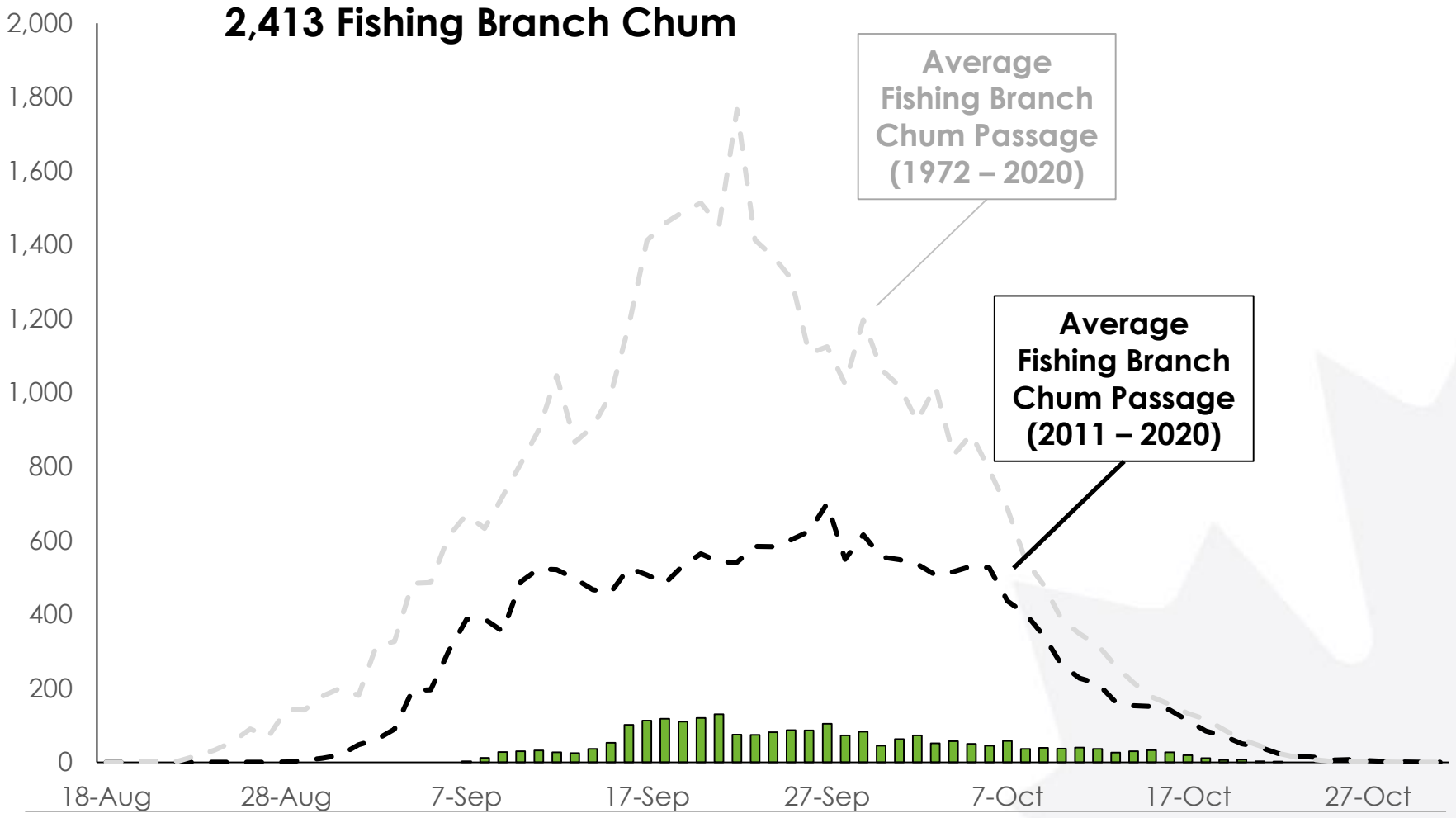
# Fishing Branch River Chum: 2021 Post-Season Report Card

| Total Fishing Branch Run Size | U.S. Harvest Share | U.S. Harvest | Canadian Harvest Share | Canadian Harvest | Spawning Escapement Estimate |
|---|---|---|---|---|---|
| 2,456 | N/A | 28 | N/A | 14 | 2,413 |

## Harvest and Escapement outcomes

- Total Canadian-origin run size insufficient to meet IMEG (22,000 – 49,000)
- Spawning escapement did not meet IMEG

# Fishing Branch – 2021 Daily and Average Passage Estimates (Spawning Escapement)



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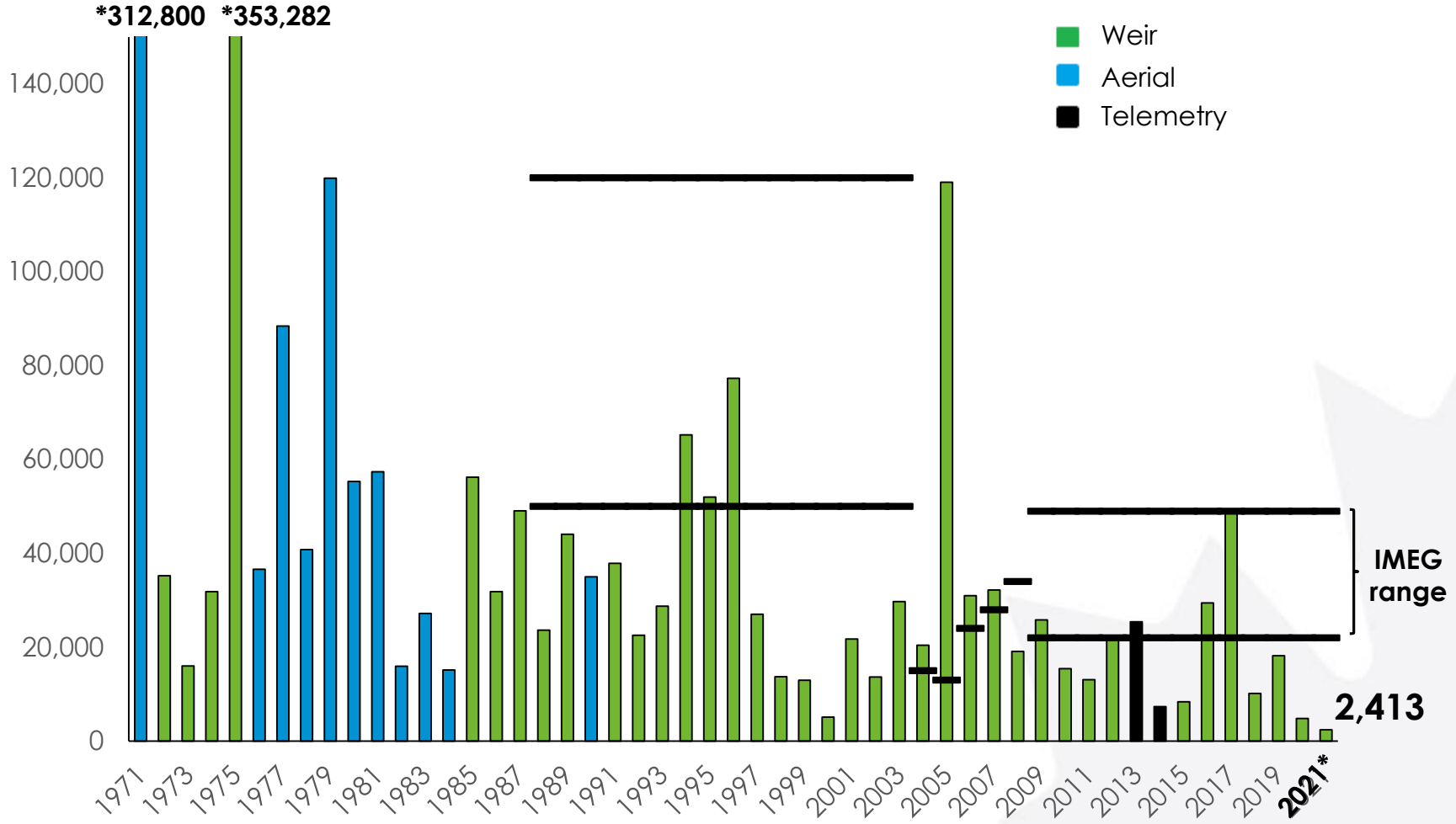
# Estimated Spawning Escapement Fishing Branch Chum



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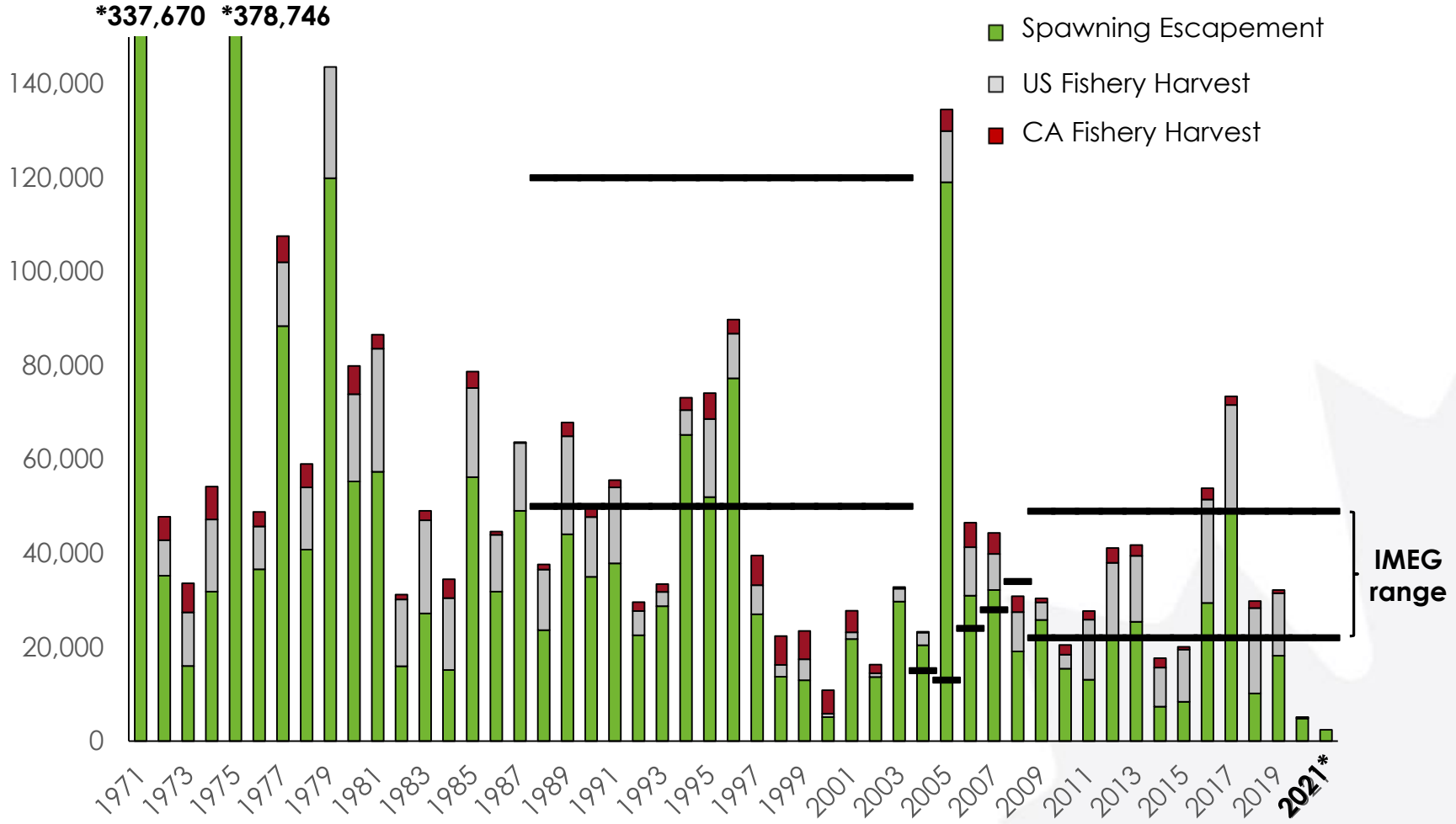
# Estimated Spawning Escapement and Harvest Fishing Branch Chum



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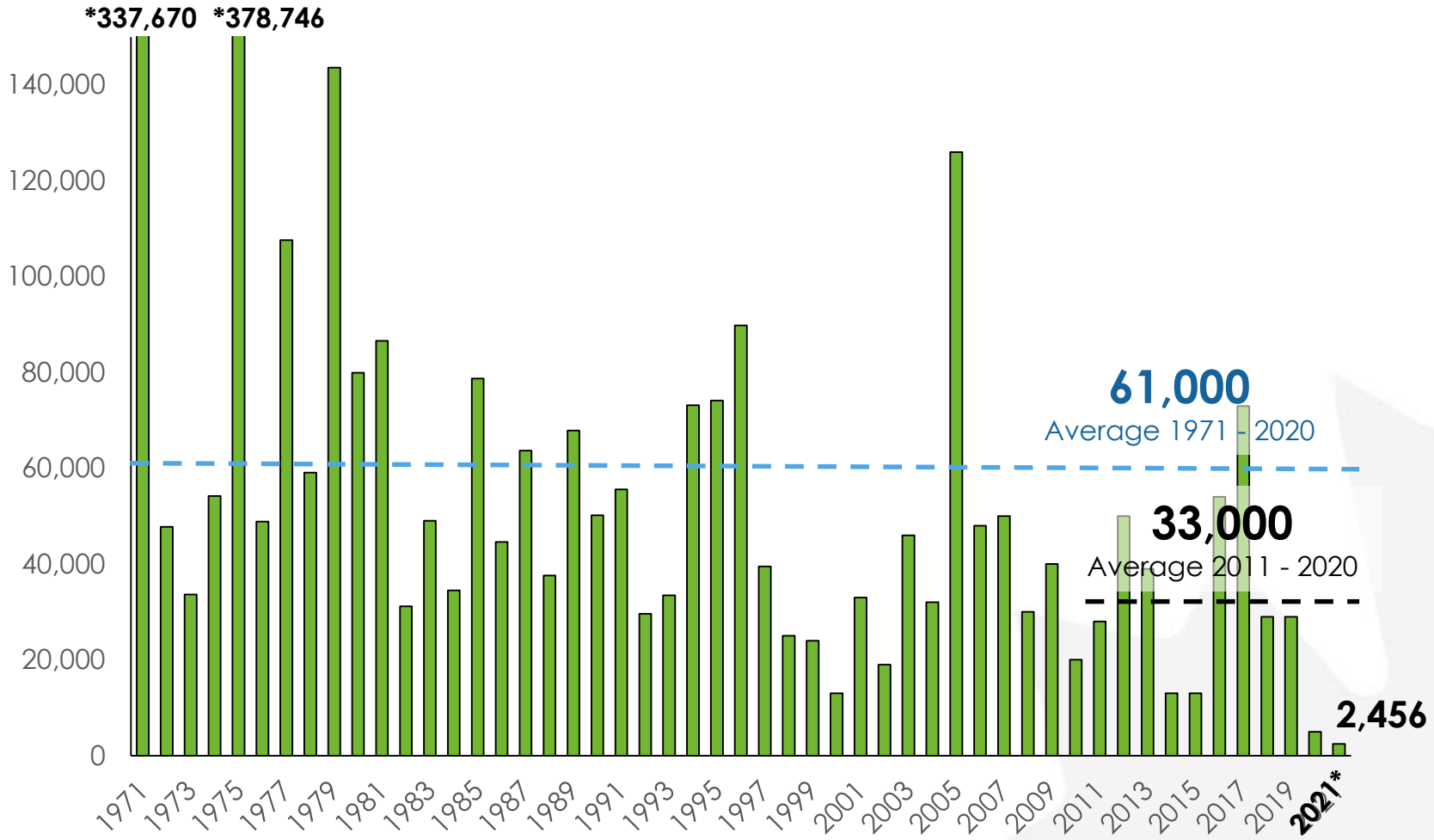
# Estimated Total Run Size – Fishing Branch River

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# Chum Age Composition by Year
# Fishing Branch River

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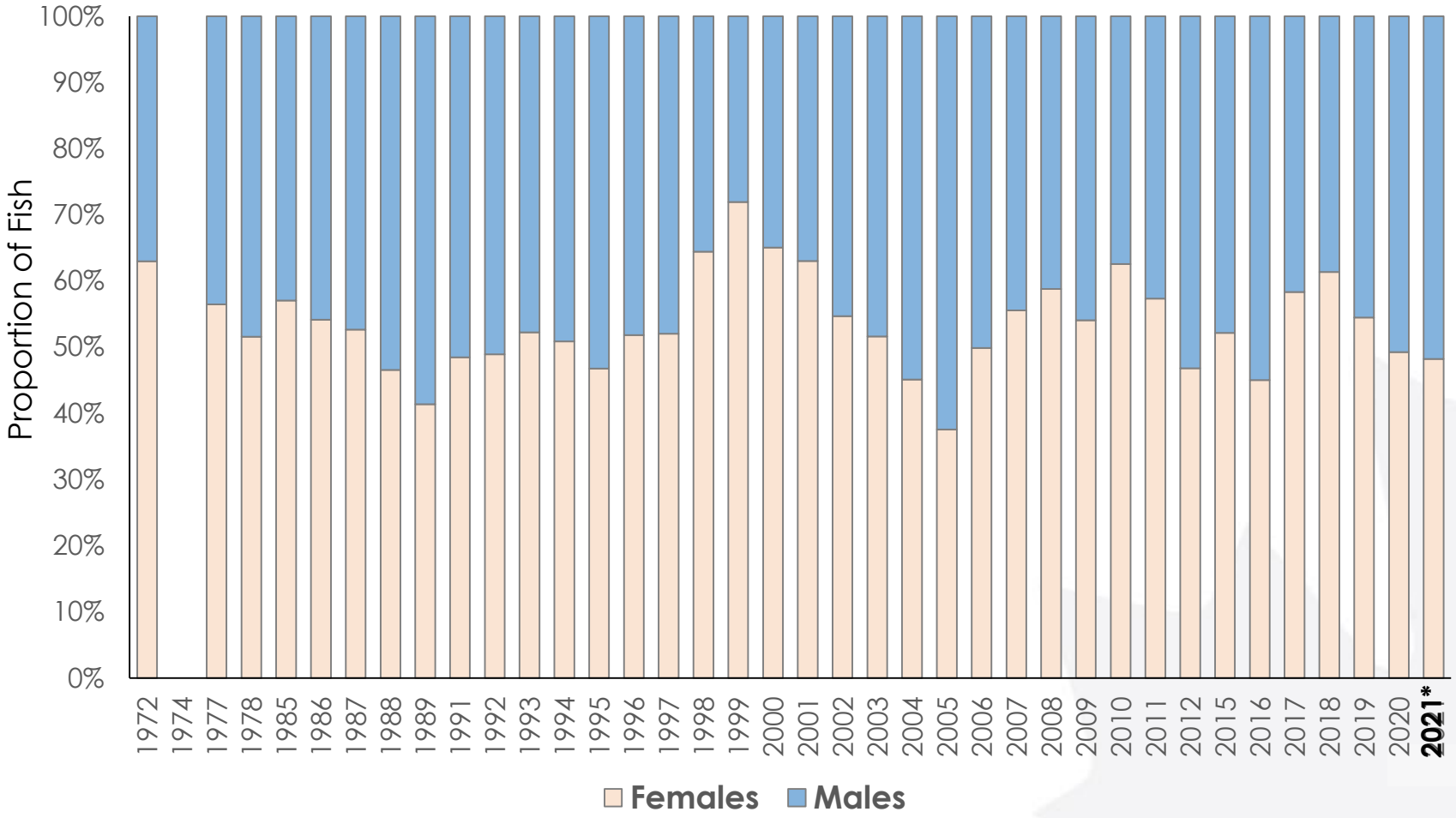
# Chum Female/Male Composition by Year Fishing Branch River



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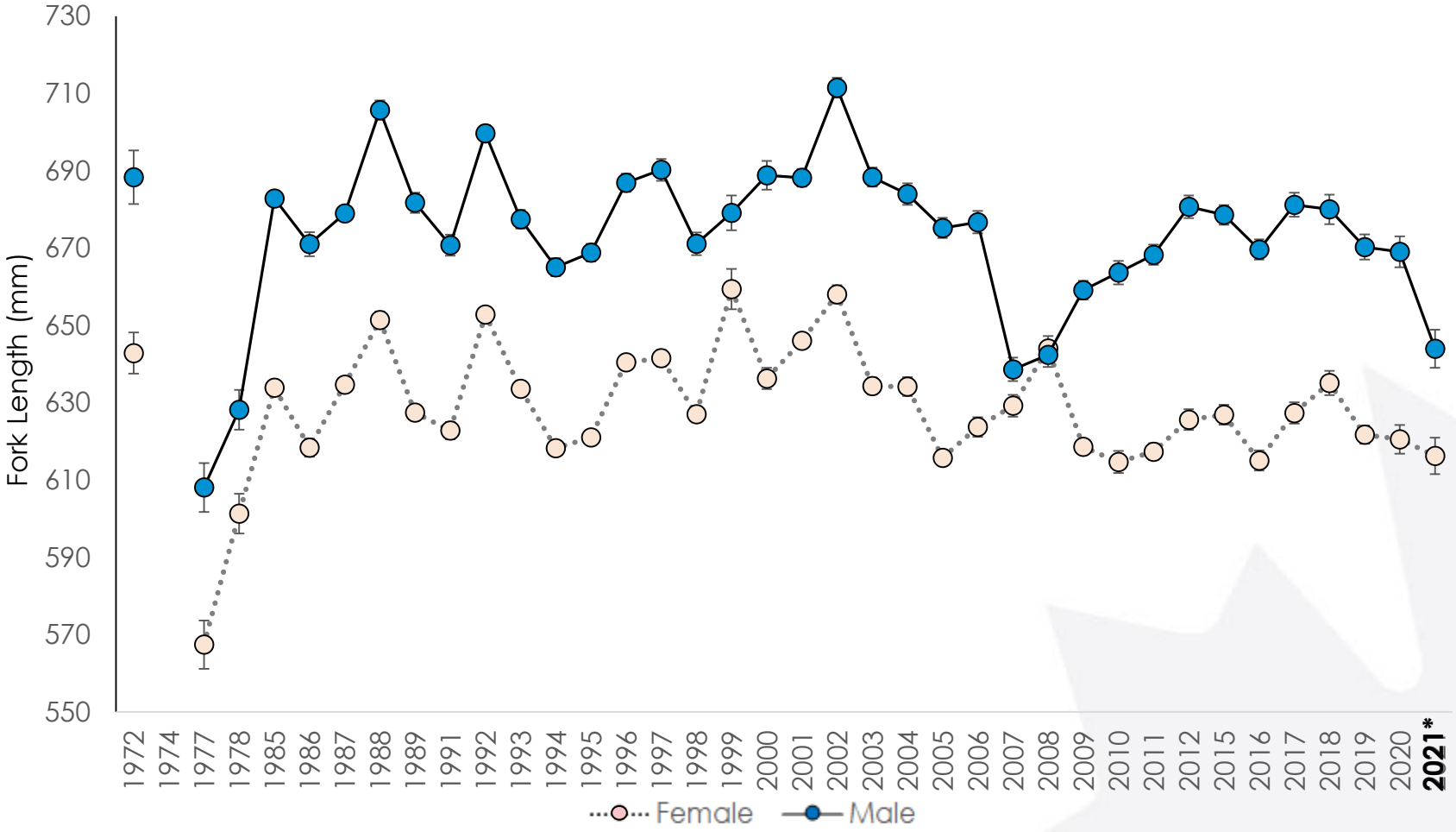
# Chum Female/Male Average Length by Year Fishing Branch River



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# Environmental Conditions

## Porcupine River

- Porcupine River water levels increased to average through chum migration period
- Water temperatures above seasonal average through late September, then below average

## Fishing Branch River

- Water levels low and steady through chum migration period and early spawning
- Water temperatures near seasonal average to mid-September, below average thereafter

C. Carli photo