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# 2016 Fraser River Chum Fishery / Steelhead Planning

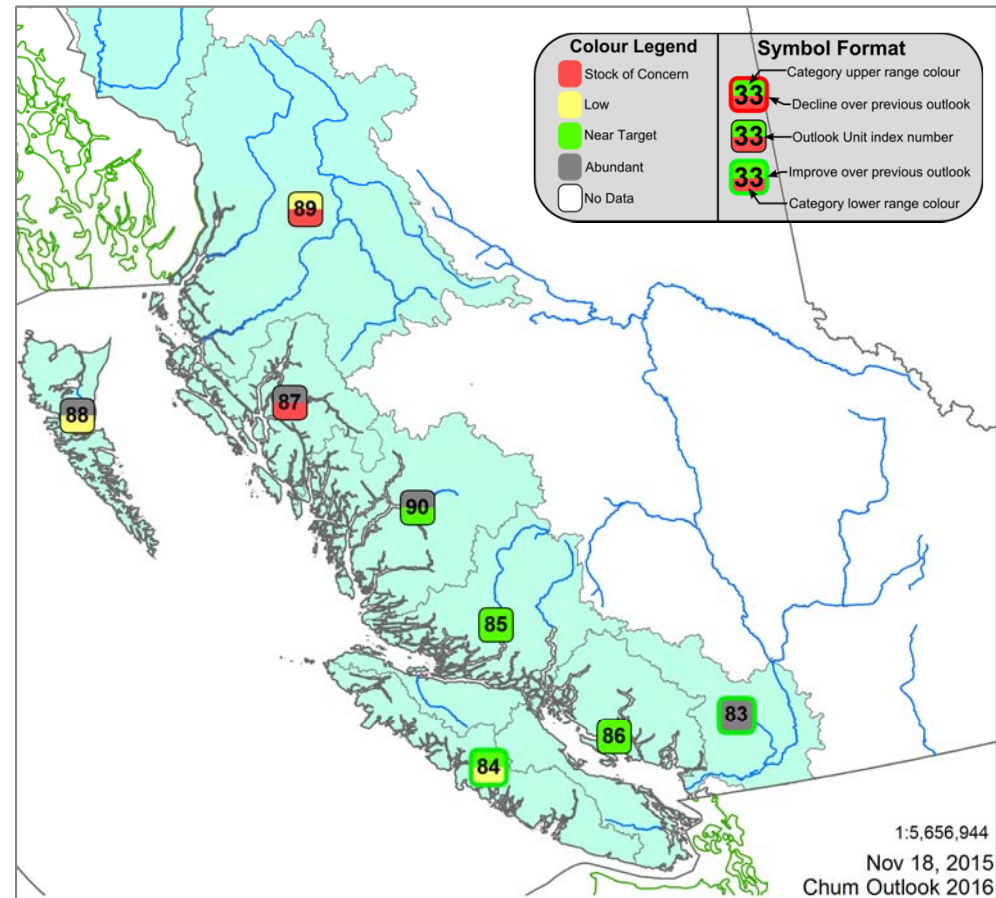
March 2016

FN Forum - Nanaimo



# 2016 Chum Outlook

Category	Count
1, 1/2, 1/3, 1/4	2
2, 2/3, 2/4	4
3 & 3/4	4
4	1



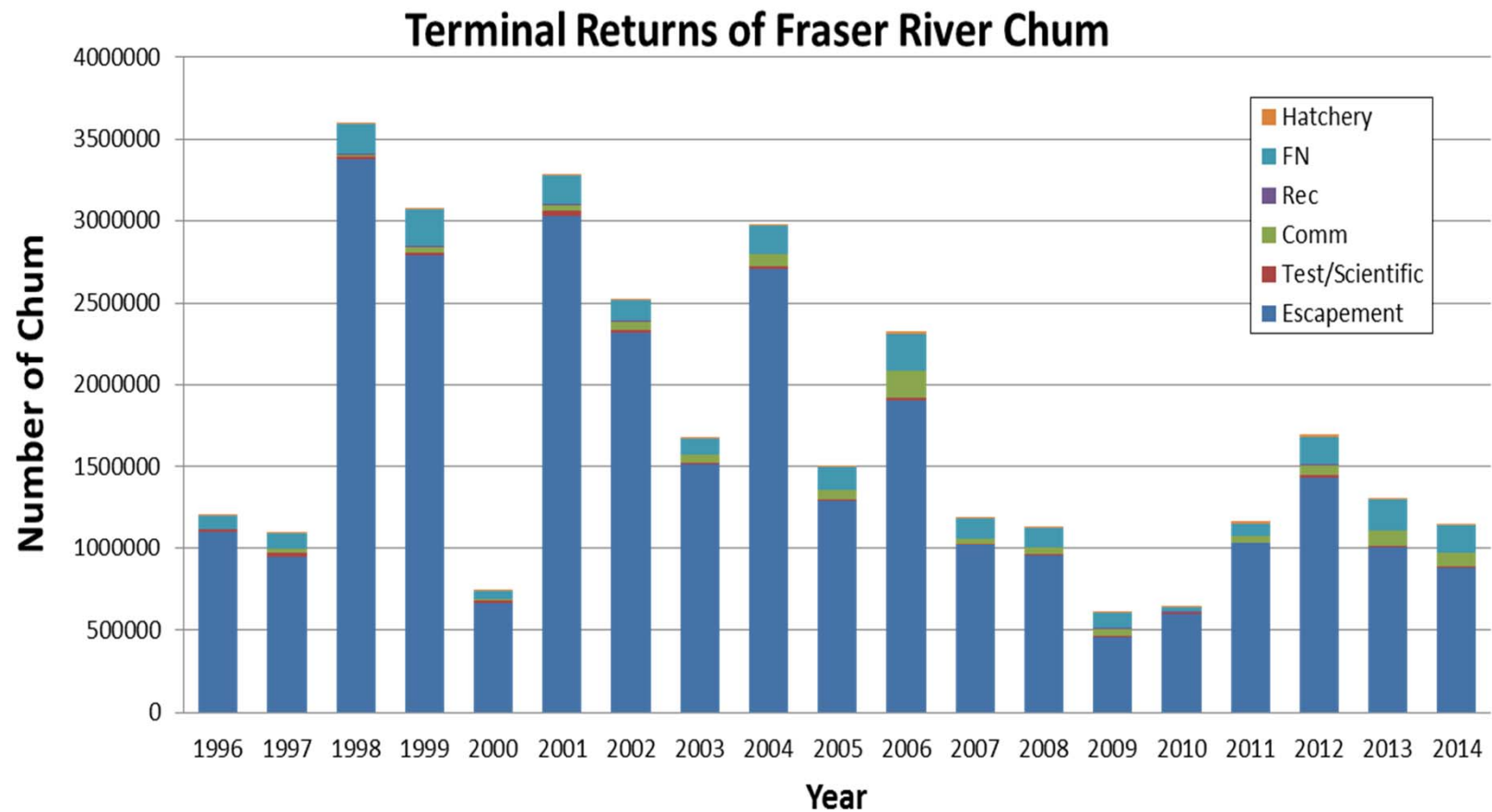


## 2016 Fraser Chum - Outlook

- Fraser Chum salmon escapement trended downward from 1998 to 2010
- The escapement decline was halted and reversed with an estimated 1.1 million spawners reported in 2011. Spawning escapement has remained stable through 2014 (2012-2014 estimated escapement averaged 1.2 million spawners).
- Escapement assessments for 2015 are ongoing; an estimate of the 2015 escapement will be available in late March
- 2015 Outlook Category was 3, 2016 Outlook Category is 4.



# Fraser Chum terminal returns





# Fraser River chum fisheries decision rules

Run Size	Harvest Plan	Lower Fraser First Nations	Commercial	Recreational
<500,000 in Fraser	<10%	Limited (reduced hours and days/week fishing)	Closed	Main stem Fraser River closed, restricted openings on tributaries
500,000 to 800,000 in Fraser	Directed fisheries limited to FSC	Normal	Closed	Main stem Fraser River closed, restricted openings on tributaries
800,000 to 916,000 in Fraser	Catch not to exceed 91,800 (82,800 First Nations and 9,000 test fishing)	Normal	Closed	Main stem Fraser River open, restricted openings on tributaries
916,000 to 1,050,000 in Fraser	Commercial catch not to exceed 10% for chum.	Normal	Open (35,000-105,000)	Open
>1,050,000 in Fraser	Commercial catch not to exceed 15% for chum.	Normal	Open (105,000 plus)	Open



## 2016 Fraser Chum

- Measures to reduce impacts to Interior Fraser coho (IFR coho) include gear and area restrictions from September 1 to October 7th in the Fraser River main stem below Mission (IFR coho window closure).
- If initial Fraser River terminal run-size assessment in mid-October indicates that abundances are:
  - $>1.05M$  - consideration may be given for Area B fisheries to precede Lower Fraser gill net fisheries - from last year.
  - $<1.05M$  - consideration will be given for Area B to access commercial allocation remaining after Lower Fraser gill net fisheries have concluded.



## IFMP Objective for steelhead

Draft Management measures proposed for the 2016/17 IFMP

- The objective for Interior Fraser River steelhead is to minimize the impact of Canadian fisheries, managed by DFO, taking into account conservation concerns for these populations.
- For Fraser river commercial gill net fisheries, the strategy is to protect 80% of the IFR steelhead run with a high degree of certainty.



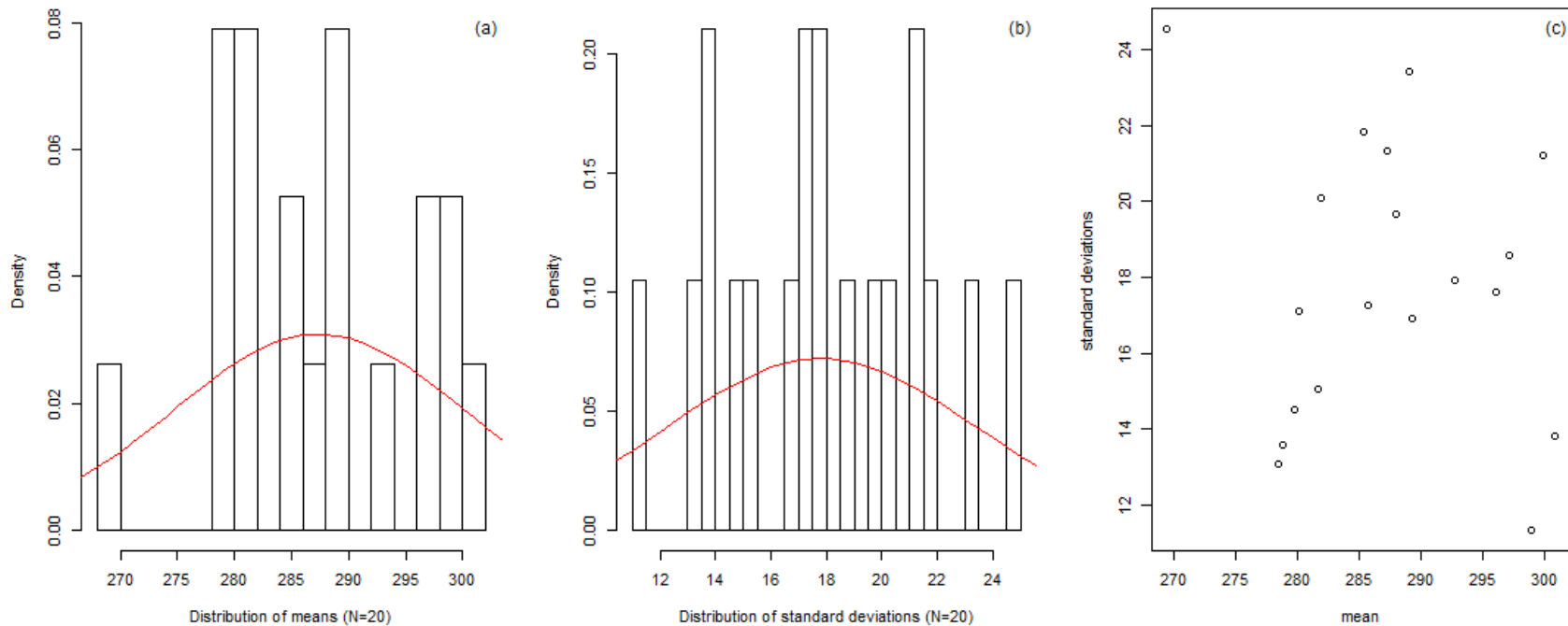
## IFMP Objective for steelhead

- The main tool used to protect steelhead is delaying commercial chum gill net fisheries to avoid the majority of Interior Fraser steelhead migration period.
- In addition, there are provisions for mandatory release and other measures to promote selectivity maintained (e.g. daylight hour fisheries, short set times, reduced net lengths, brailing, etc.)
- In order to assess the level of protection we need to look at:
  - the timing of the steelhead return,
  - the residence time of the steelhead in the area, and
  - the chum fishing plan.





# Characterize steelhead migration



- Fit normal curves to Albion TF steelhead catches
- Characterize variation in 50% date and “spread”



## Steelhead residence time in fishing area

- Migration speed - between 7.5 km/day and 40km/day
  - Depending on information source (tagging studies, temperature based, assuming sockeye migration speeds, etc)
- Fishing area is ~80 km long
- So a day of fishing effort in the fishing area could impact several days of SH migration



## Protection

- Use assumptions from previous slide to characterize the run, apply the chum fishing plan then calculate the % of steelhead run protected by limiting the fisheries to the planned openings
- Use a Monte Carlo approach to generate confidence intervals around the prediction of protection



# 2016 Proposed Fishing Calendar

October						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
					1 IFR Coho Window Closure	2
3	4	5	6	7	8 IFC Closure Mission - Hope FSC- downstream of Mission	9
10	11	12	13	14 FSC - downstream of Hope	15	16
17 First In-season Update	18 FN EO Selective Gear	19	20 Final In-season Update	21	22 FSC - Patullo to Hope ***MFN+TFN will propose GN EO here *****	23
24 Area E FN EO Selective Gear	25	26 FN GN EO	27 Area E	28	29 FSC - Patullo to Hope FN GN EO	30
31 FN EO Selective Gear Area B <small>Area H troll - Subareas 29-3, a portion of Subarea 29-4 north of the 49th parallel, and Subarea 29-6</small>						



## Fraser Chum

- The Department will continue to engage with the Province on the strategy for addressing steelhead impacts in fisheries.



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The end