



# Early Timed Fraser Chinook: Context, Challenges and Opportunities



*First Nations Fisheries Council*

*October 28-30, 2009*



# Outline of talk

1. *Context-* stocks, status, and management

1. *Challenges*

1. *Opportunities*



# Fraser Chinook Stocks

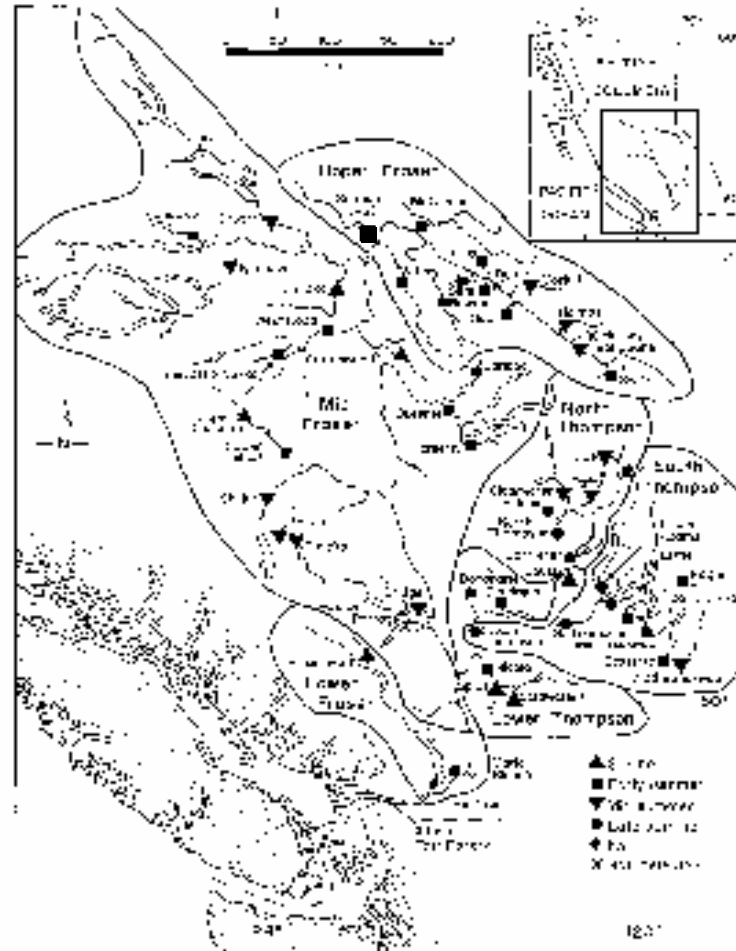
**Early Timed** (7 stocks from Spring age 4 and Spring age 5) - Mar-May peak at Albion

**Spring/Summer stream type** (e.g. Spring age 5 and Summer age 5) –June-July peak at Albion

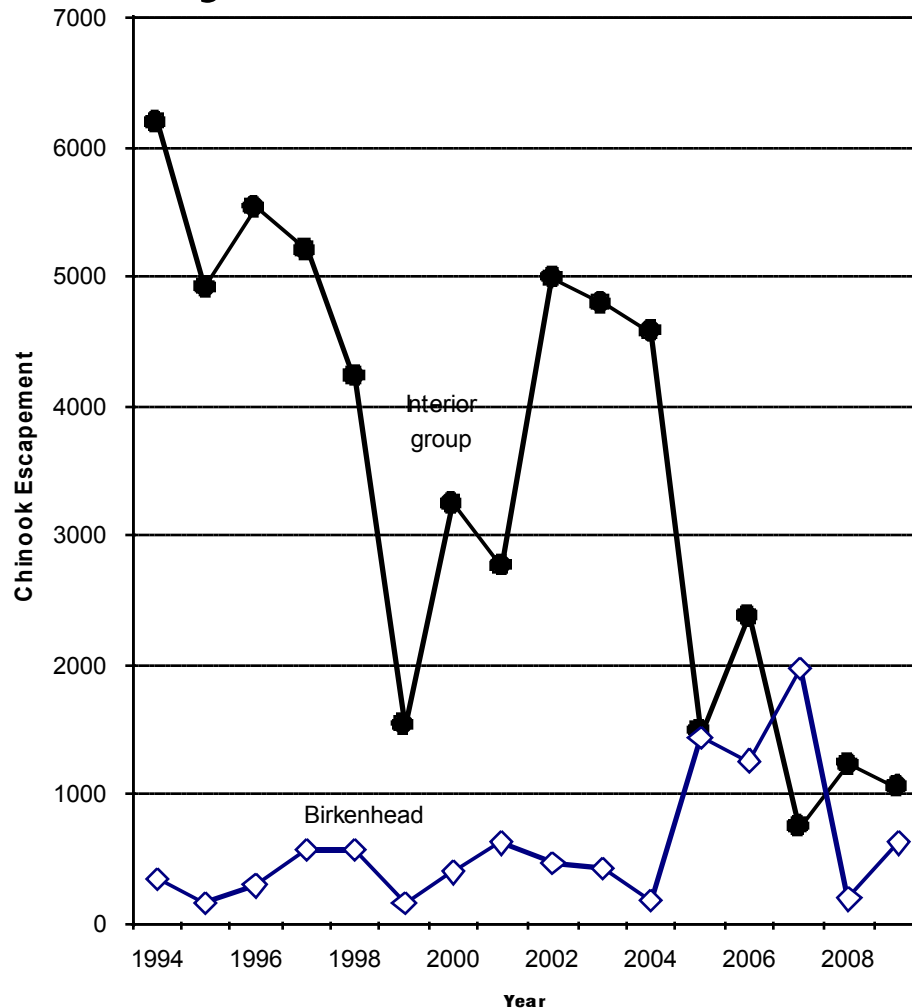
**Late Summer ocean type** (e.g. Summer age 4)- August peak at Albion

**Fall** (e.g. Lower Fraser -Harrison) – September-October peak at Albion

- \*timing information and figure from Parken et al. 2008 NAJFM



# Early Timed Chinook Spawners

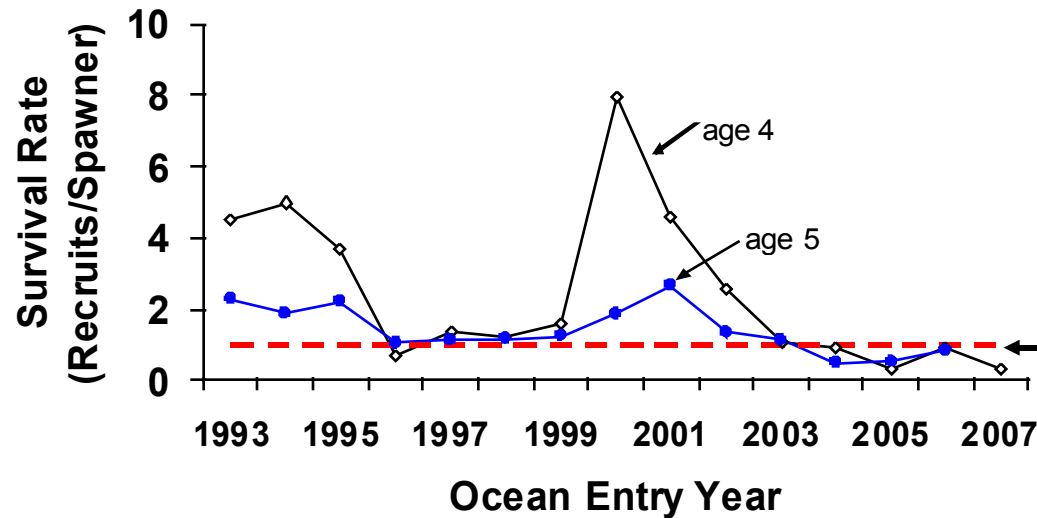


- Pattern of brood line declines for Interior group including: *Coldwater*, *Spilus*, *Louis*, *Chilako*, *Cottonwood*, *U. Chilcotin*

- *Birkenhead* declined back to historic levels after being at productive capacity for 3 years.

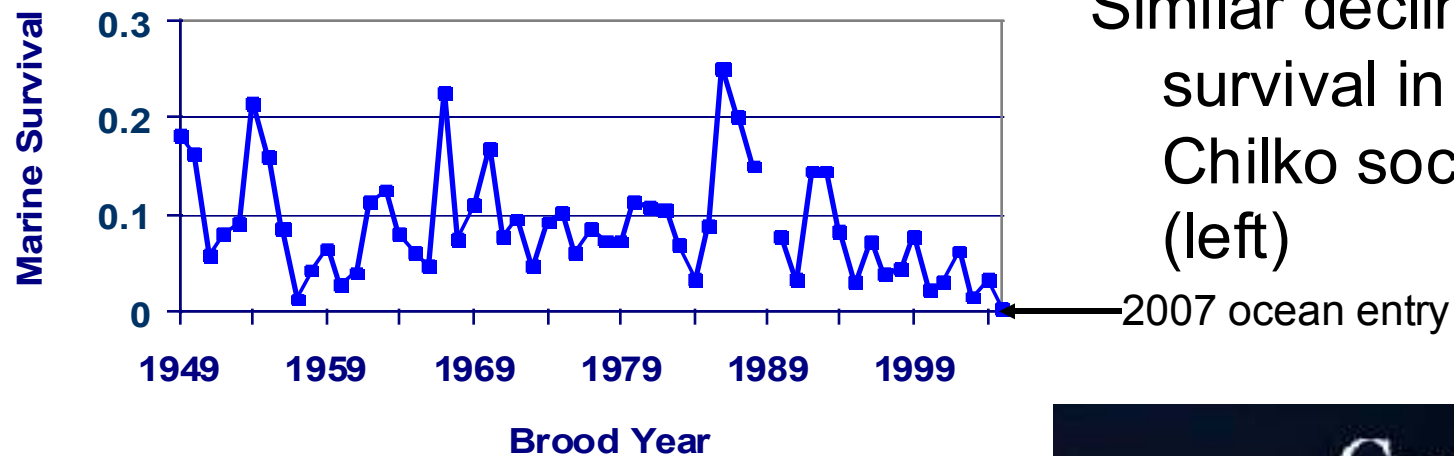
- All stocks classified as “stock of concern” (2009 Salmon Outlook)

# Trends in Survival



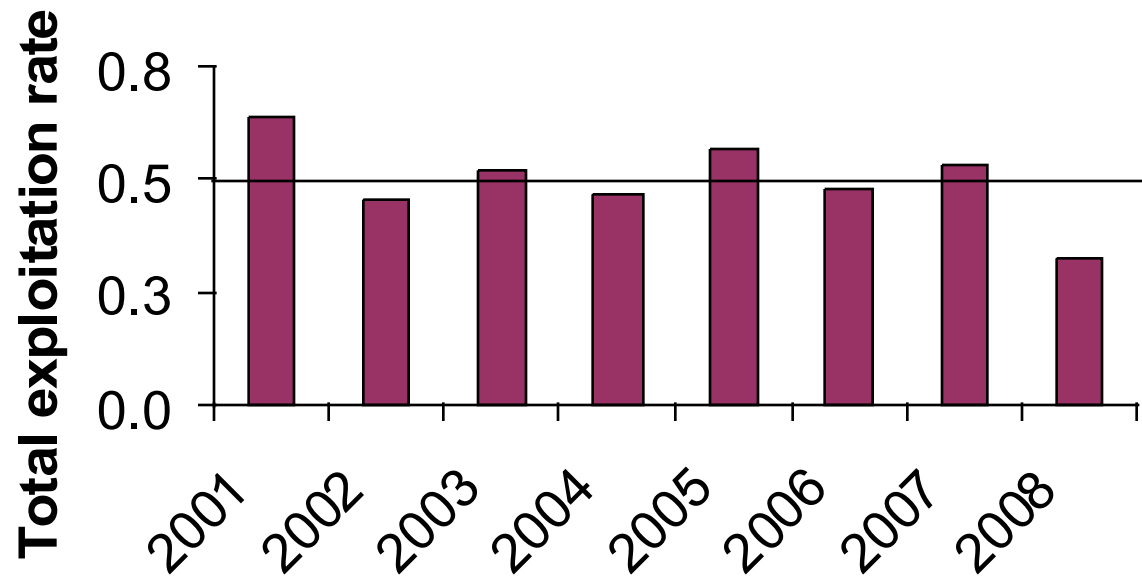
Fraser stream  
type chinook

Since 2004 populations  
likely to have declined  
even with no fishing  
(e.g.  $R/S < 1$ )



Similar declining  
survival in  
Chilko sockeye  
(left)

# Distribution of Annual Exploitation Rates on<sup>6</sup> ET Chinook (Excluding Birkenhead)



- Management actions reduced 2008 exploitation rates

- current exploitation rates likely to prevent rebuilding unless survival improves



# Early Timed Chinook Objectives

In 2009, Department developed management approaches to:

1. Reduce exploitation rates on early timed chinook 50% relative to 2006/07
2. Respect allocation priorities
  - Provide priority for First Nations' food, social, and ceremonial fishing.



# 2009 Fishery Planning Considerations

- Based on the pre-season outlook for Fraser chinook populations, the Department worked with Fraser River First Nations to develop fishing opportunities to harvest chinook for food, social and ceremonial purposes as follows:
  - **March to May:** reduced fishing effort on weaker ET chinook populations entering the Fraser
  - **June and July:** increased FSC opportunities based on in-season abundance of SS chinook in June and July
  - **Beginning in August:** additional FSC opportunities on more abundant populations are entering the Fraser River.



# Challenges

- Requests for further discussion of approach used to implement Allocation priorities
- Limited data on ET chinook required new methods to estimate exploitation rates in First Nations, commercial and recreational fisheries
- Further discussion on use mark selective fisheries for Chinook requested
- Poor returns of Fraser sockeye increased demands for harvest of Fraser chinook; evidence of poor survival affecting age 4 and age 5 *stream type* Chinook as well.



# Opportunities

- Opportunities to work collaboratively:
  - Assessing methodologies to estimate fishery harvest impacts (e.g. Fraser Watershed Joint Technical Forum)
  - WSP implementation (e.g. benchmarks)
  - developing priorities, work plan, and strategies for sustaining Fraser River Chinook
  - Suggestion to broaden management focus from ET chinook to include all Fraser chinook populations (e.g. 5 management units: Spring 4<sub>2</sub>, Spring 5<sub>2</sub>, Summer 5<sub>2</sub> and Summer 4<sub>1</sub>, and Fall)
- Ongoing work to improve understanding of fishery monitoring and catch reporting across all fisheries.

