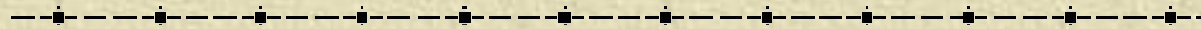
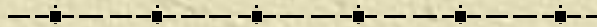


BC and Yukon Salmon Data Access Project



prepared for
Salmon Data Access Working Group
First Meeting
3-4 November 2008



Monitoring Strategy for the Conservation of Northern Pacific Rim Salmon - **Goal**

❖ *To augment existing monitoring and analytical efforts in order to identify potential conservation concerns for salmon and their ecosystems before they become irreversible.*

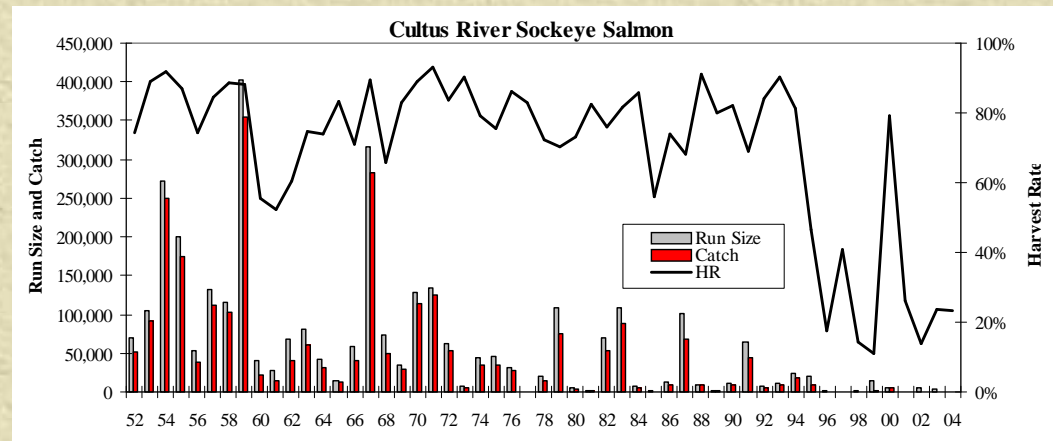


Recent salmon data inventory and stock assessment reviews in BC

- ✦ 2004 – Prepare North and Central Coast Fisheries Resource Manuals for FTNO
- ✦ 2004 – Initiate review of core stock assessment programs for North & Central coast
- ✦ 2005 – Prepare South Coast and Fraser Fisheries Resource Manuals for FTNO
- ✦ 2005 – Initiate Data Inventory for Ecotrust
- ✦ 2006 – Complete Data Inventory for Salmon and Steelhead and Core Stock Assessment Review
- ✦ 2007 – 1st index stream review workshop
- ✦ 2008 – link index stream, escapement and CU data

Data Inventory Objectives

- ✦ Conduct a survey of salmon datasets in BC and Yukon Territory;
- ✦ Assess datasets for quality and utility;
- ✦ Assign datasets to Monitoring Tiers; and
- ✦ Acquire respective datasets, where available.



Data Inventory and Assessment Components

- allocation of resources for North and Central Coast

Major Component	%
Escapement Monitoring	54%
Catch Monitoring	25%
Stock Composition	5%
Indicator Streams	10%
Juvenile Assessments	5%



Escapement Monitoring Review

- ✦ Organize escapement data by species, statistical area and years of information.
- ✦ Ask fisheries managers and regional biologist to identify streams with reliable time series of escapement estimates (i.e. index streams).
- ✦ Evaluate information for each index stream.
 - Survey methods, quality, years of data, etc.



Field Method Quality Ratings

- 1) **Poor** - An estimate of low resolution due to few surveys, counting deficiencies, etc.
- 2) **Fair** - An estimate of medium resolution based on two or more visual estimates (e.g. lower quality AUC est.)
- 3) **Good** - An estimate of high resolution based on three or more visual inspections (e.g. medium-high quality AUC est.)
- 4) **Very Good** - An estimate of high resolution based on M-R data, incomplete fence count, or highly reliable AUC calculation.
- 5) **Excellent** - An estimate of high resolution from an unbreached fence count.

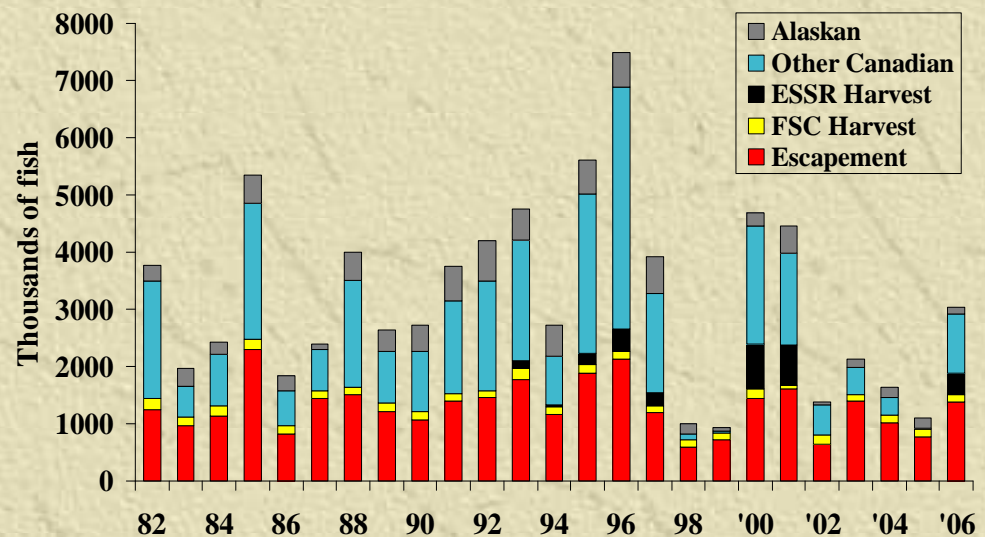
Escapement Monitoring Summary

- BC Streams

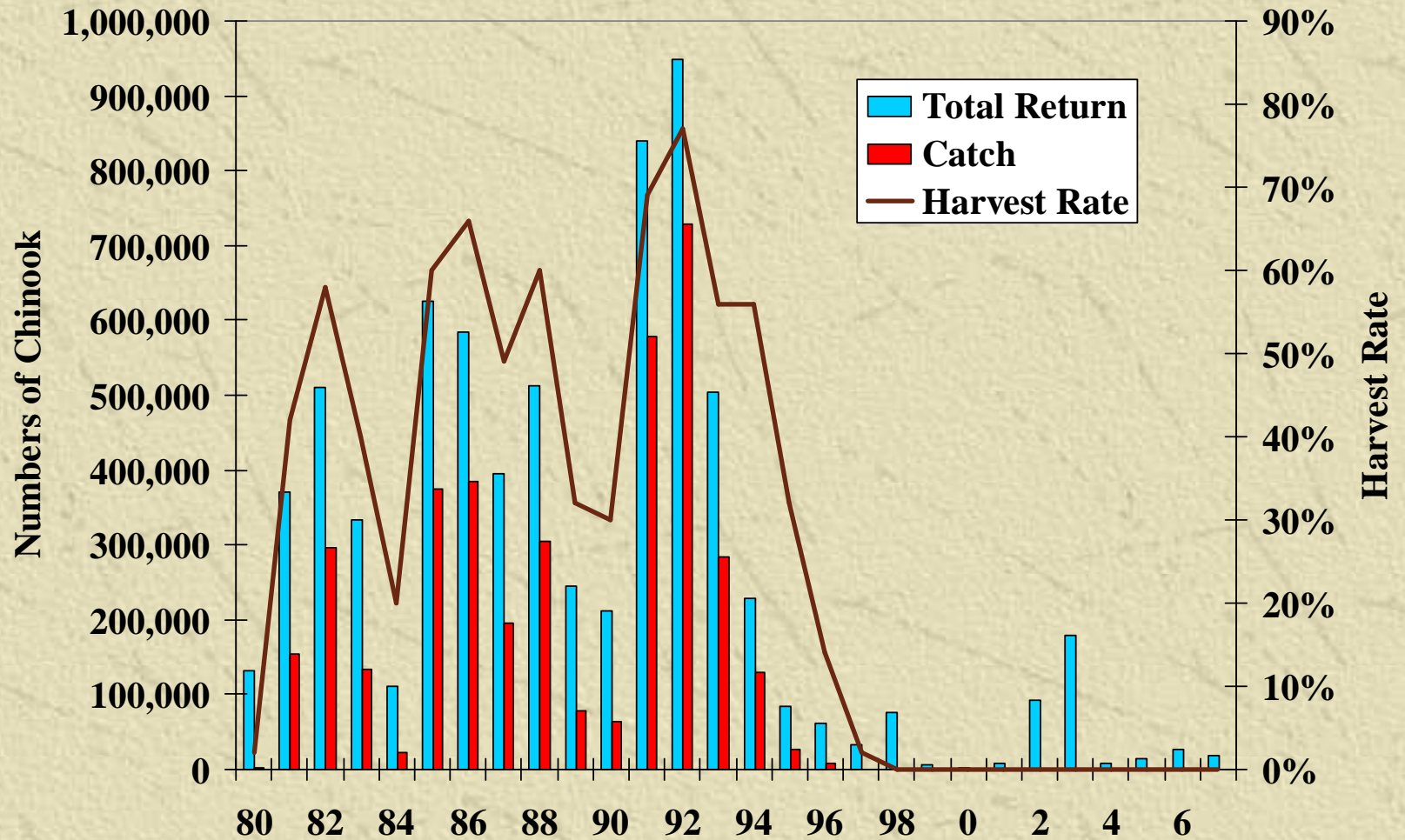
Species	CUs	Index Streams	1	2	3	4	5	CUs Missed
Sockeye	230	181	23	70	51	22	15	142
Pink Odd	18	216	0	92	117	6	1	3
Pink Even	12	312	0	114	194	3	1	2
Chum	32	383	0	119	204	10	3	5
Chinook	58	123	0	28	26	66	3	22
Coho	37	286	0	107	130	40	9	5
Steelhead	27	48	22	4	18	4	0	?

Assessing stock & fishery status

- ✦ use index stream data to monitor trends in escapement for each Conservation Unit (CU)
- ✦ combine escapement and catch data to estimate total annual stock size and exploitation rates for each CU
- ✦ For example...

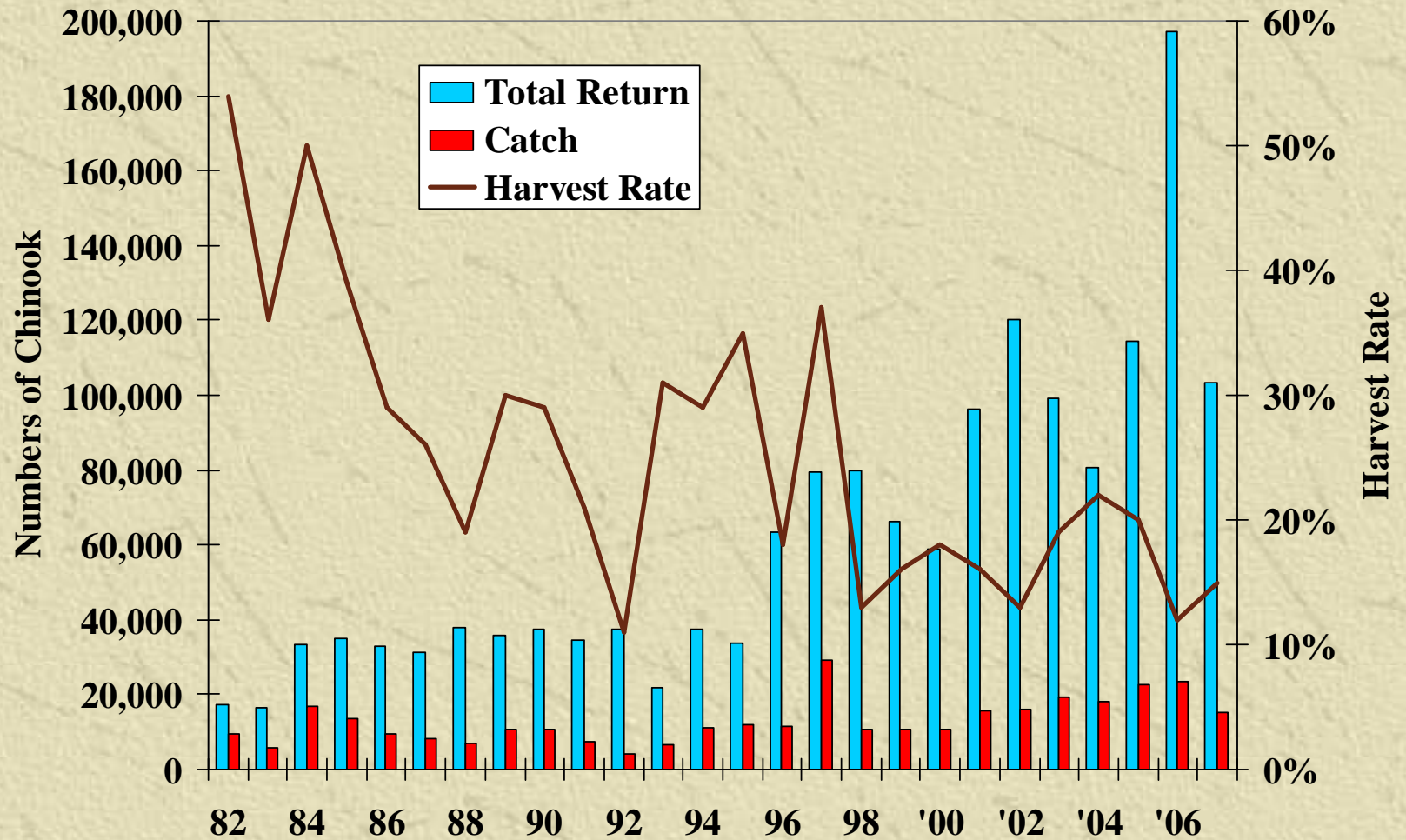


Example: A Central Coast Sockeye CU - Smith Inlet (Long Lake)



Example: A Fraser Chinook CU

- South Thompson Summer – Age 0.3



Next steps

-
- ✦ Complete review of index stream escapement data.
 - ✦ Link index stream meta data to nuSEDS database.
 - ✦ Review methods used to estimate total annual stock size and exploitation rates for each CU
 - ✦ Generate abundance and exploitation rate estimates for each CU.

