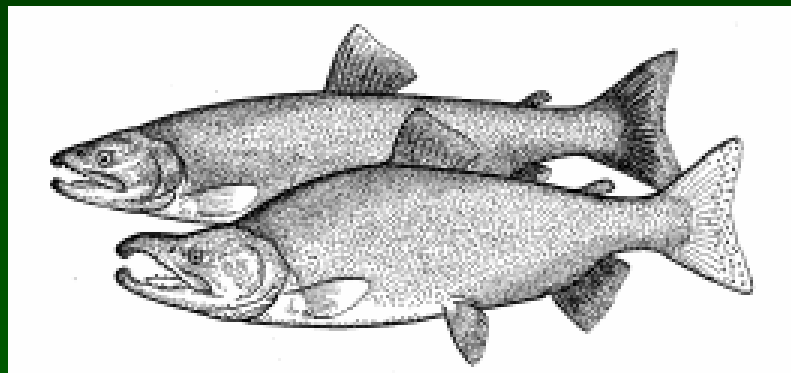


2005 Skeena Sockeye Review



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This talk...

- 1) 2005 Returns
- 2) Sockeye Stock Status

2005 Pre-Season Forecast

BROOD YEAR	BLDP FRY	SMOLTS	AGE 3-2	AGE 4-2	AGE 5-2
2000	2001	2002	2003	2004	2005
2001	2002	2003	2004	2005	2006
2002	2003	2004	2005	2006	2007

- : Sibling Model (Adults)

75% probability = 1,072,000

50% probability = 1,534,000 (240,000 Age 4, 1,294,000 Age 5)

25% probability = 2,196,000

5 yr average Model (Adults)

75% probability = 1,653,000

50% probability = 2,535,000

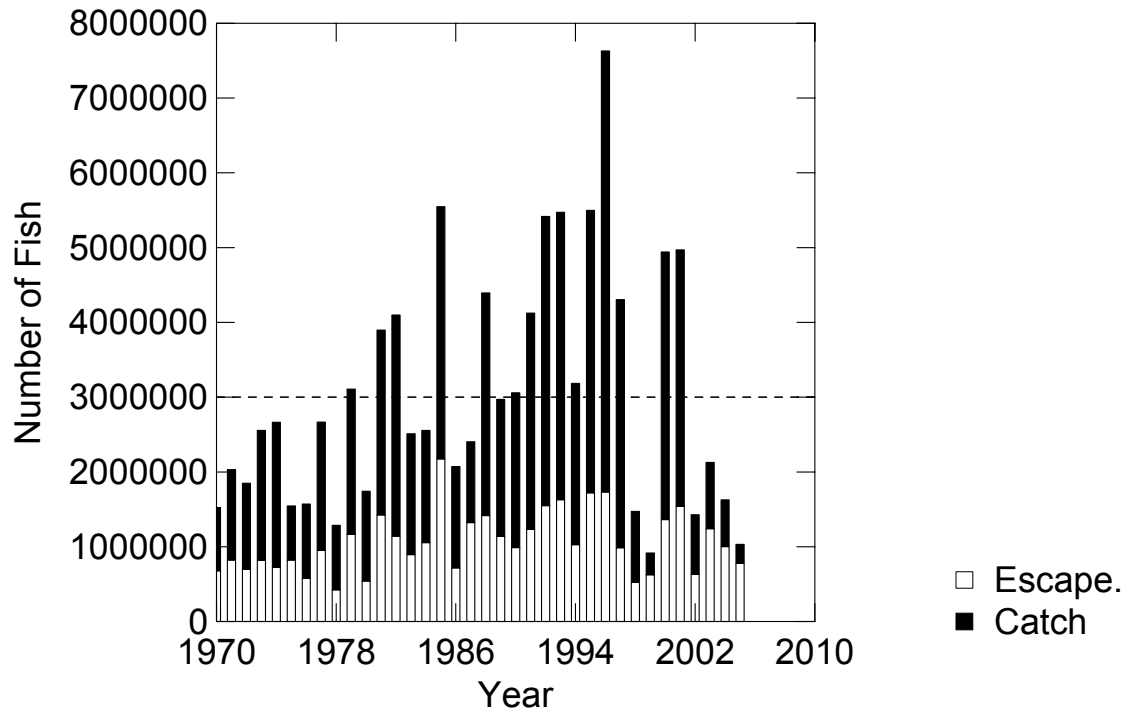
25% probability = 3,889,924

Post-Season Accounting (bold)...

~1,032,000 (ages 4,5,6)

year N		output in year N+1	output in year N+2	returns in year N+3	returns in Year N+4	returns in Year N+5	Production from BY
BROOD YEAR	Fence Escape	BLDP FRY	Total SMOLTS	AGE 3-2	AGE 4-2	AGE 5-2	
2000	1399457	152.1	114.88	131643	1116050	418853	1666546
2001	1488900	250.9		17944	530220		
2002	580000	205.2		155517			
2003	1142475	205.3					
2004	901338	262.8					
2005	768897						

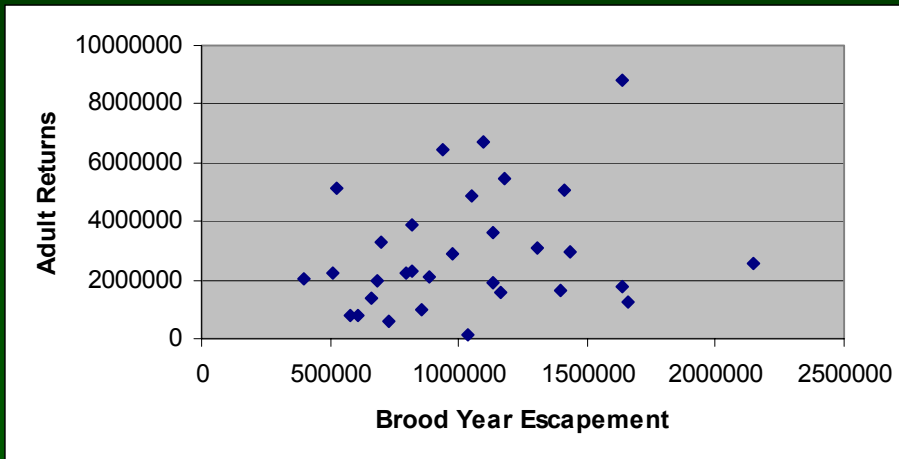
Skeena Sx 2005 ~ 1,032,000



Why such poor returns in 2005 given good escapements in 2000 and 2001?

- No evidence of a freshwater rearing problem.
- For the 2005 age 4's:
 - Data suggest poor ocean survivals for smolts entering in 2003 (2001 BY) as reflected by poor 2004 Age 3 jack returns.
- For the 2005 age 5's:
 - Lower than expected returns based on the 2004 age 4 return.
- Role of Babine Lake production on recent returns?

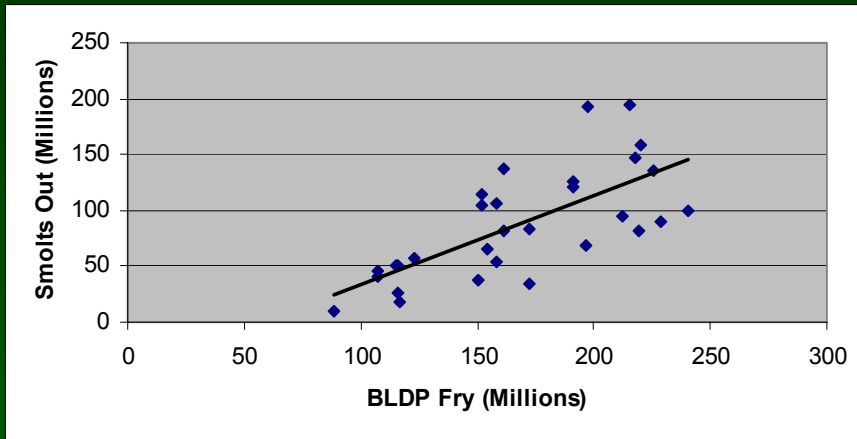
Production from Babine Lake



- Weak relationship between total Babine escapement and Total returns
- BLDP produces 90% of Babine fry with about 400,000 spawners at capacity

year N	Net Babine Fence	output in year N+1	output in year N+2	returns in year N+3	returns in Year N+4	returns in Year N+5	Total Return
BROOD YEAR	Escape	BLDP FRY	Total SMOLTS	AGE 3-2	AGE 4-2	AGE 5-2	
1999	606136	107.7	41.35	25974	468901	325514	820389
2000	1399457	152.1	114.88	131643	1116050	418853	1666546
2001	1488900	250.9		17944	530220		
2002	580000	205.2		155517			
2003	1142475	205.3					
2004	901338	262.8					
2005	768897						

Did the large # of fry (251m) from the 2001 BY actually leave the lake?

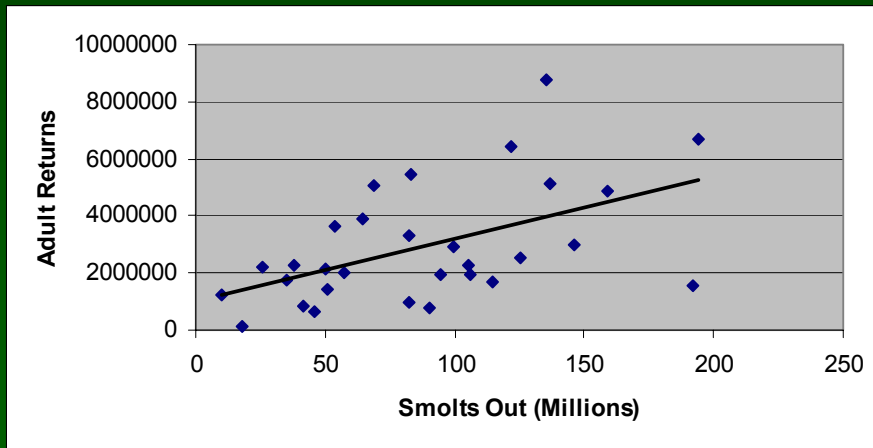


- Good historical relationship between BLDP fry and # of smolts out.. nothing to suggest high density competition is occurring between 200m and 250m fry.

BY	Escape.	BLDP Fry	Smolts	Total Return
1992	1092916	215.2	194.1	6703312
1981	1432734	217.4	146.3	2969804
1986	701507	219.3	82.3	3297914
1984	1052385	220.1	159.1	4896408
1996	1638361	225.9	135.5	8798307
1976	580597	228.8	90.4	791049
1990	978646	240.3	99.7	2915760
mean	1068164	223.9	129.6	4338936

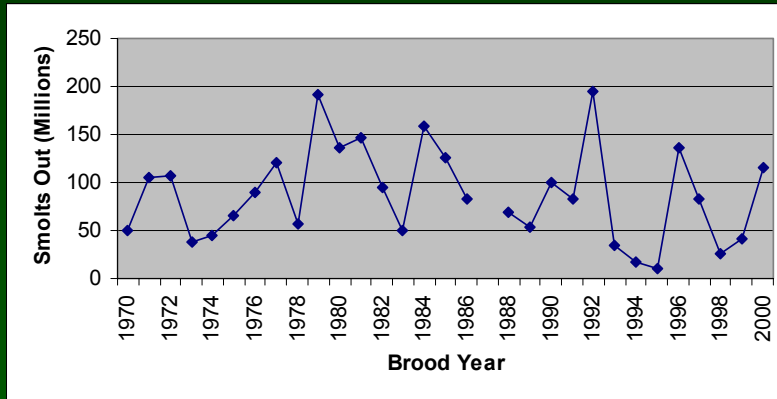
- Lake capacity for just the Main basin >225m fry
- No evidence that too many juveniles were in the lake for the 2001 BY

Smolts Out vs Adult Returns?

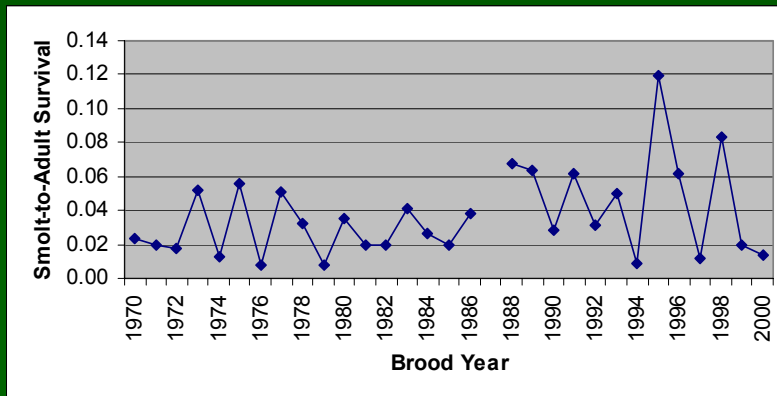


- Not a great relationship between # of smolts out and adult returns due to variable ocean survivals

Concern about recent smolt to adult survival trends...



- Fry and smolt production from Babine Lake has been good in recent years



- Smolt to adult survival has been poor in recent years...

2005 Catch and Escapement Summary (Draft)

	CATCH	EXPLOIT. H.R	
AREA 3/4/5 GN	13189	0.013	0.014
AREA 3/4/5 SN	29984	0.029	0.032
AREA 3/4/5 NET	43174	0.042	0.046
AREA 3/4/5 FSC	50000	0.048	
AREA 1 NET	0	0.000	0.000
U.S. NET	50000	0.048	0.048
TOTAL MAR. CAT	143174		
TYEE ESCAPE	888897		
FSC/ESSR CATCH	112165	0.109	0.126
ACTUAL ESCAPE	776732		
TOTAL RUN	1032071	0.247	

2005 Escapement Summary

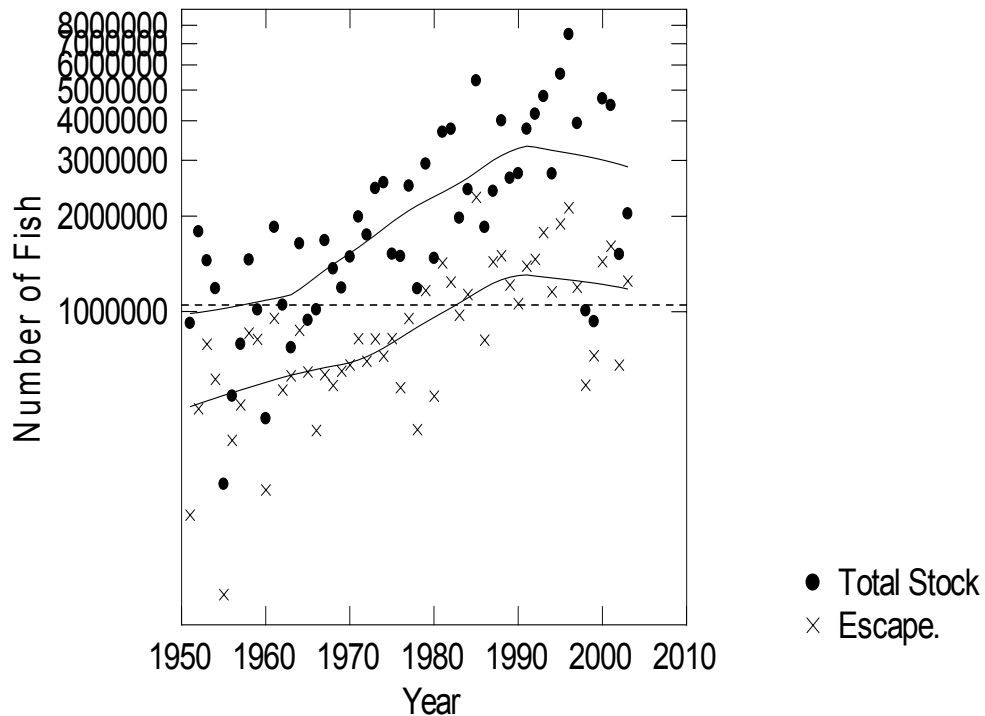
-in-season Tyee estimate = 712,159 (to Aug 25)

2005 Babine Fence Count	708897
2005 Below Fence Essr	0
2005 Above Fence Essr	0
2005 Below Fence IFF	80000
2005 Above Fence IFF	32165
2005 Other Escape.	100000
2005 Net Escape.	776732
2005 Tyee Escape.	888897

Stock Status

-Aggregate stock

Total stock has increased since enhancement began but production has been low the last few years (graph not updated for 2005)

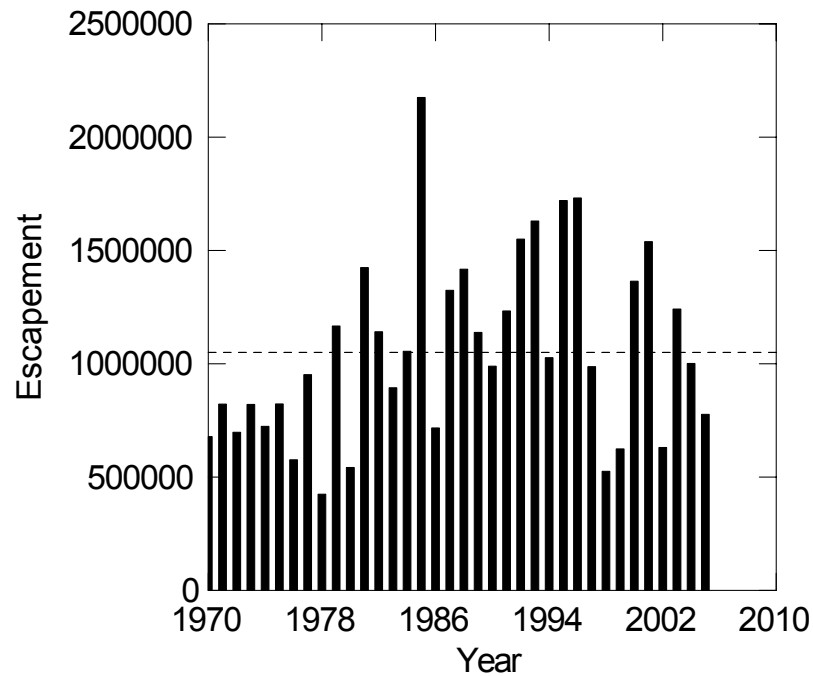


	Stock
2005	1.0 M
2004	1.6 M
2003	2.1 M
2002	1.4 M
2001	5.0 M
70-79	2.0 M
80-89	3.0 M
90-99	3.8 M
00-04	2.9 M
70-05	3.0 M

Escapement Trends

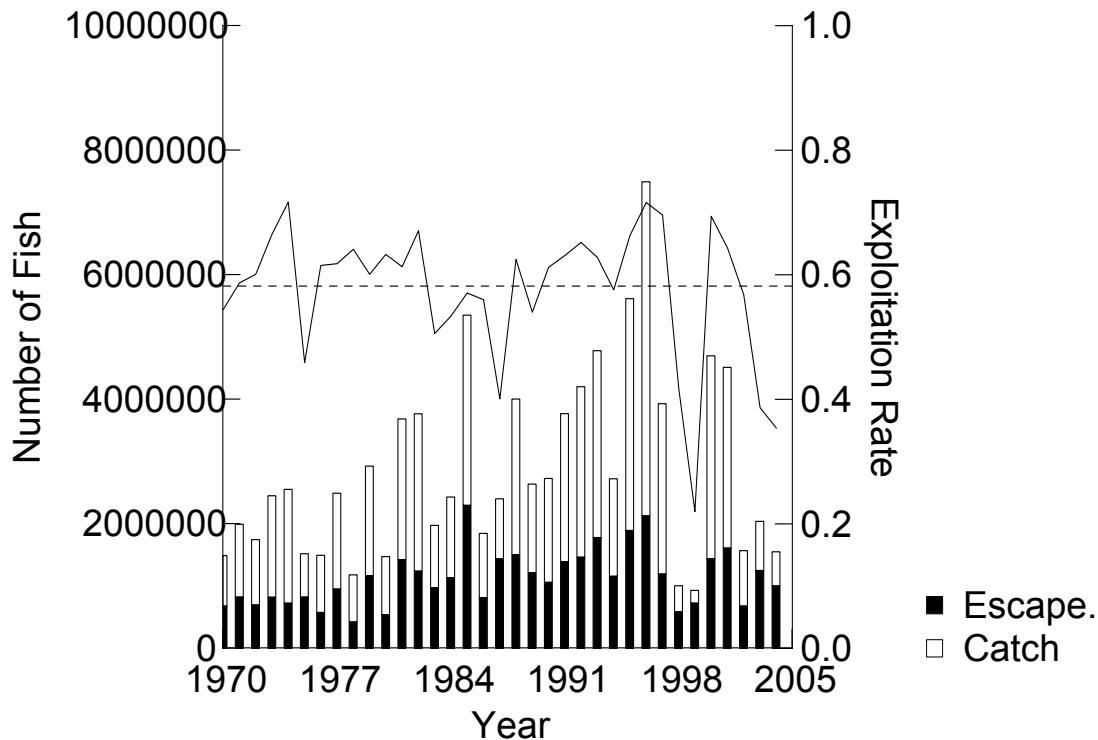
Target = 1,050,000

2005 = 776,700



2005 Exploitation ~25%

(graph not updated for 2005)



Expl.

2005 25%

2004 35%

2003 39%

2002 57%

70-05 59%

Stock Status

-Skeena sub-stocks

Issues

- Continuing concern for Skeena sockeye sub-stock status but progress is being made.
- Focus is on improving the number of spawners and the number of juveniles relative to lake rearing capacity
- Recovery plan in now place for Lakelse Lake...also being developed for Kitwanga and Morice Lake.

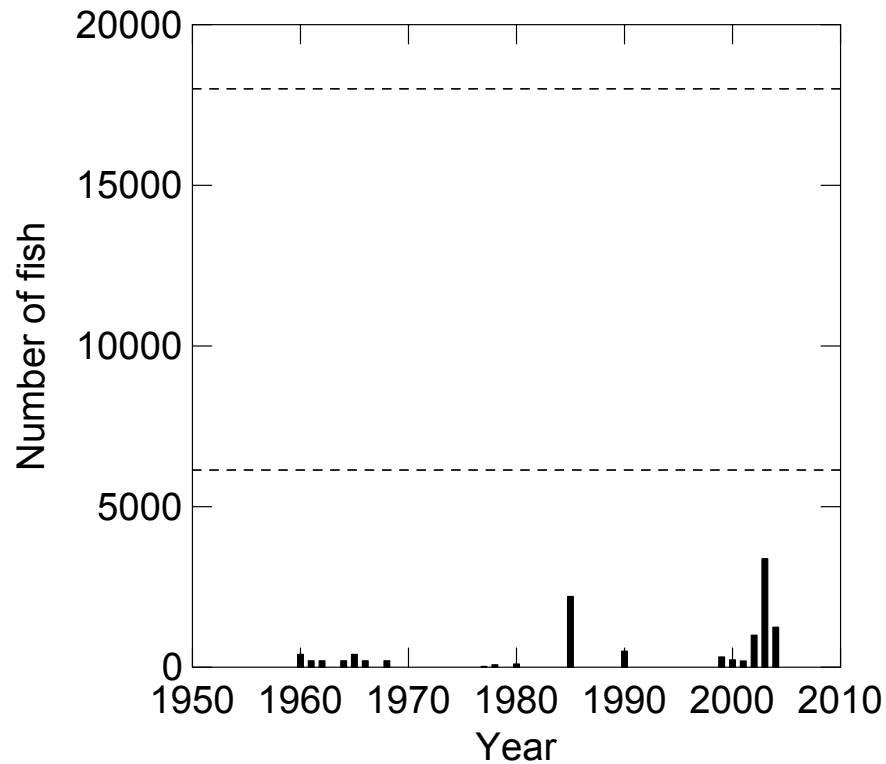
Various sources of information used to infer stock status of Skeena Sx

- B.C. 16 adult escapement surveys (biased low and are uncertain)
- Juvenile density surveys in the lakes
- Adult fence counts and Mark/Recapture programs on several systems
- Exploitation rate estimates using computer models

Adult escapement surveys

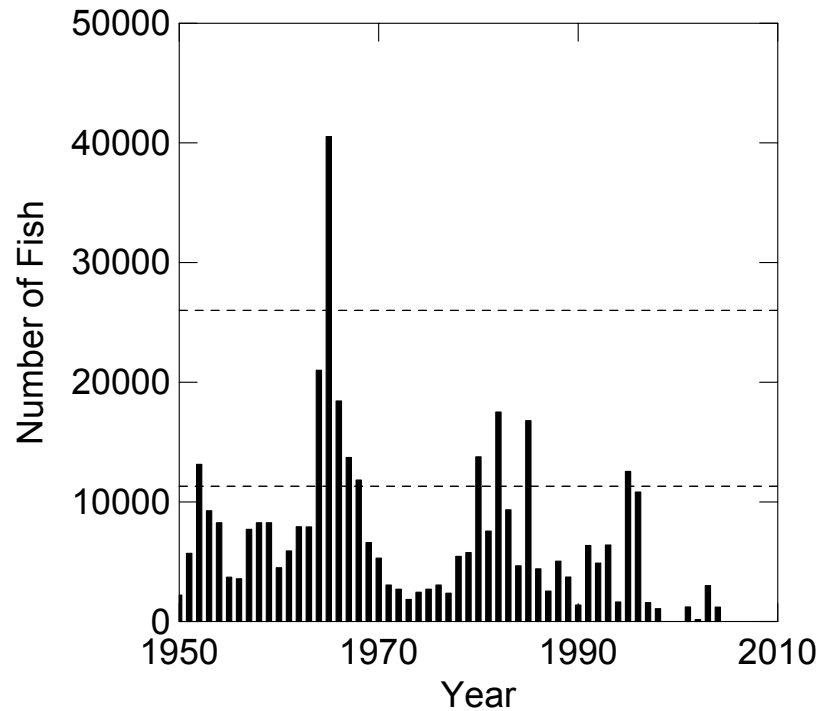
Escapements to Kitwanga

~937 in 2005 (graph not updated)



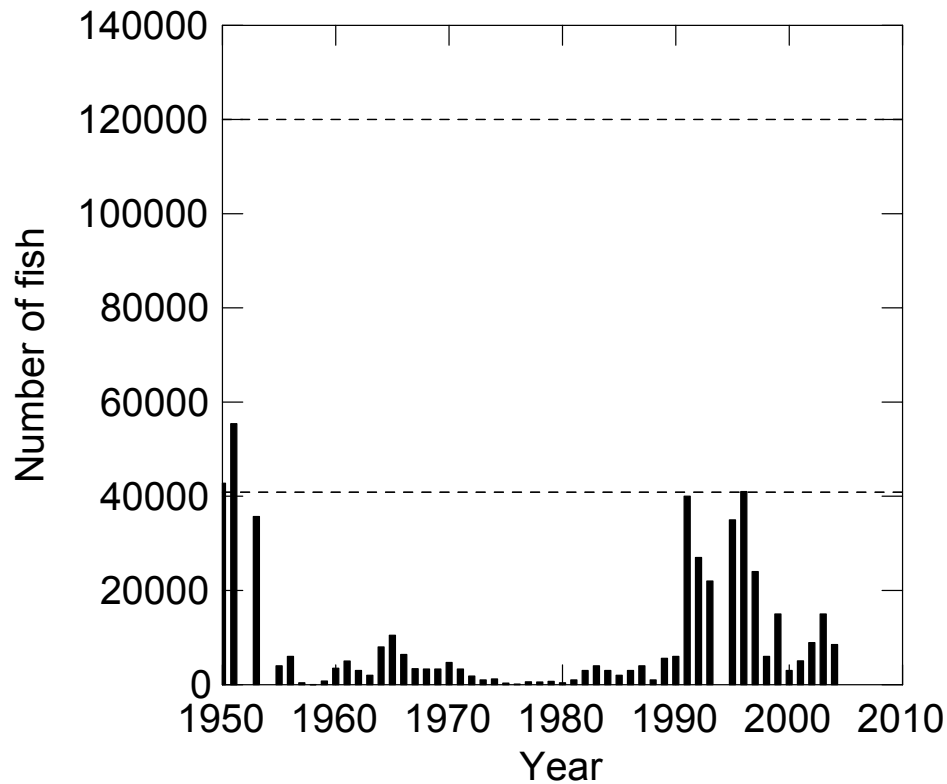
Escapements to Lakelse

~2000+ in 2005 (graph not updated)

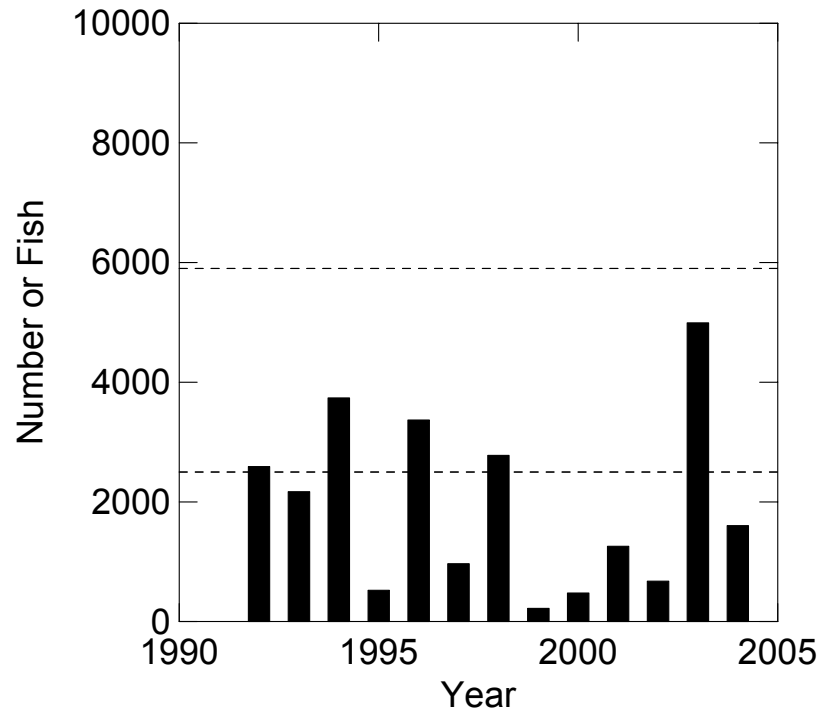


Escapements to Morice

~ 9000 in 2005 (graph not updated)

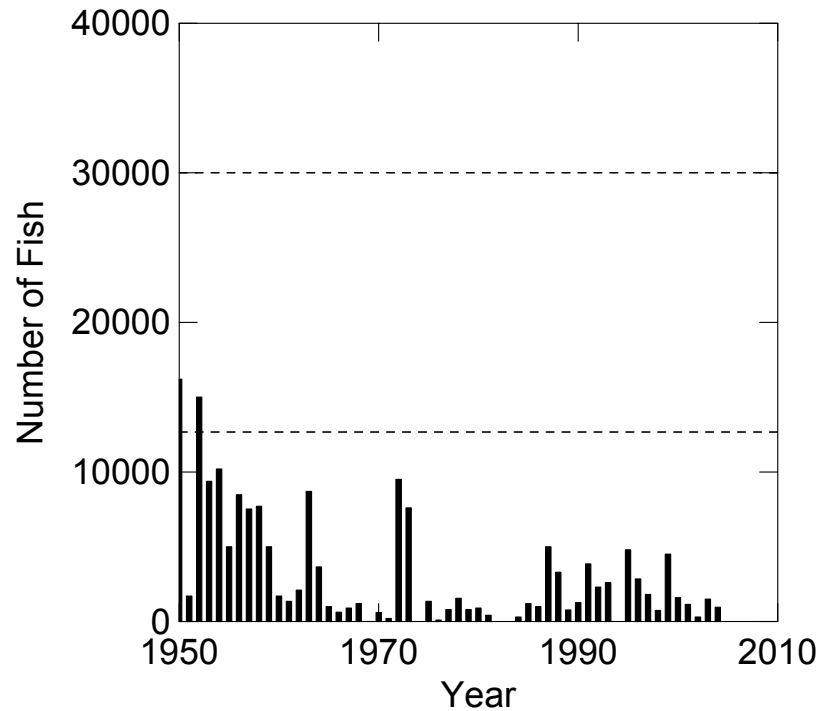


Escapements to Sustut/Johanson ~ 1175 in 2005 (graph not updated)



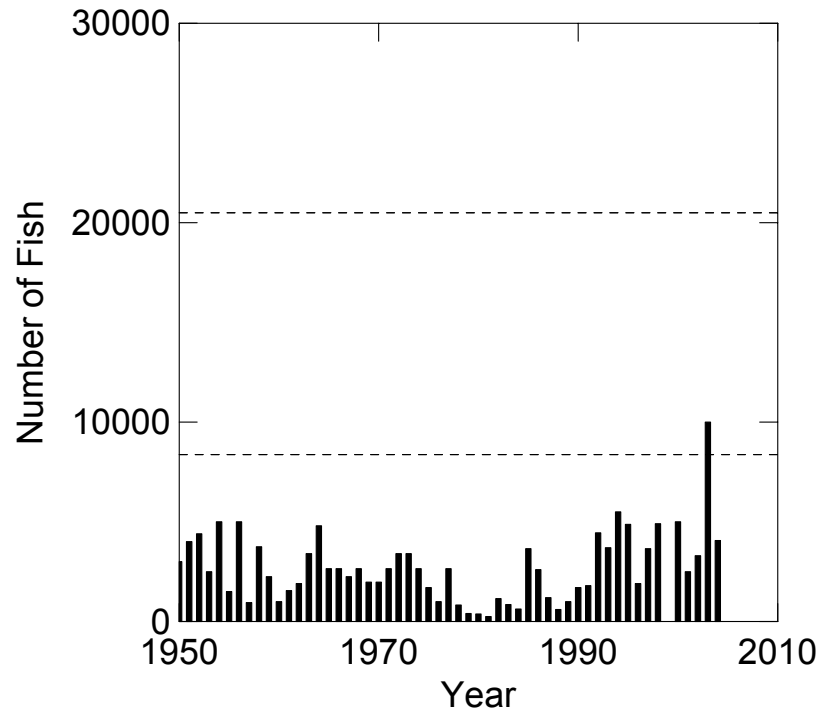
Escapements to Bear

~950 in 2005 (graph not updated)

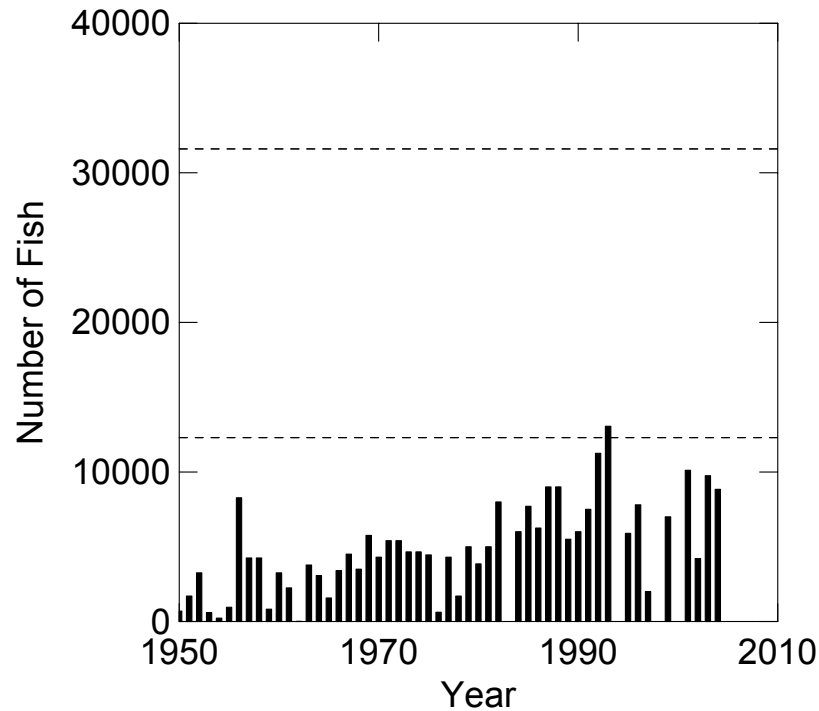


Escapements to Kalum

~3000 in 2005 (graph not updated)



Escapements to Swan/Club/Stephens ~3500 in 2005 (graph not updated)



Stock status from juvenile surveys

2005 juvenile surveys

- Surveys conducted on Kalum, Lakelse, Ecstall, and Johnson lakes...data still being analyzed
- New juvenile acoustic survey capabilities with the SFC technical committee.

