

JOHNSTON CREEK COHO ENHANCEMENT, PSC PROJECT NF-2008-I-36 UPDATE REPORT JANUARY 13, 2010

This final update will provide complete brood summary data for the 2007 brood and give status of 2008 and 2009 broods on hand.

2007 Brood

The broodstock (adult capture) program occurred on November 17 – 18, 2009 (Table 1). Four ripe females and five ripe males were spawned on November 18th for a total of 16,784 eggs. This brood was incubated and reared at Snootli Hatchery from November of 2007 to April 14, 2009. While at Snootli, all the fry were CWT marked and vaccinated against Vibriosis disease. On April 14, 2009 the 15gram pre-smolts were transported by air to a netpen in Johnston Bay in Rivers Inlet. They were in the netpen for 25 days and then released on an outgoing tide May 8, 2009. The total number released was 16,145 for an egg to release survival of 96.2%. This survival is outstanding for coho where the SEP bio-standard is 72%. The one aspect of the program that did not meet our expectations was the tag retention during coded wire tagging. Tag or pin loss was a disappointing 11%. A review of operations indicated that the nose molds used in the machine were not adequate for the size of the fish at the time of tagging. This is why the tagging program for the 2008 brood is planned for the summer of 2009 when the fry are smaller. Table II provides the fish inventory and survival data comparing relative success of the brood years to date against targets and bio-standards.

TABLE I

JOHNSTON CREEK COHO BROODSTOCK CAPTURE & EGGTAKE SUMMARY FOR 2008 AND 2009							
DATE	SETS	FISH CAUGHT			FISH SPAWNED		COMMENTS
		MALES	FEM.	TOTAL	MALES	FEM.	
2007 BROOD							
18-Nov-07	5	23	12	35	5	4	1 of the 5 ripe females escaped
2008 BROOD							
19-Nov-08	6	10	9	19			additional coho observed= 3f, 1m, 2j & 1unk
20-Nov-08	1	3	1	4			
22-Nov-08					3	2	
24-Nov-08					3	1	
02-Dec-08	1	8	9	17	6	6	
TOTAL	8	21	19	40	12	9	
NOTE: 9 males were killed for spawning, one died in holding, 2 were released. All females in holding not used for broodstock were taken back to the river and released							
2009 BROOD							
24-Nov-09	2	59	28	87	8	4	males released after spawning
01-Dec-09	1	25	20	45	5	5	1 female from holding - all males from net & released after spawned
TOTAL	3	84	48	132	13	9	there were no recaptures during broodstock capture
NOTE: none of the males were after being spawned. All the adults held at Dawsons (except for the one ripe female that was spawned) were taken back to the river and released Dec.1.							

2008 Brood

Broodstock capture and eggtakes occurred between Nov.19 and Dec. 2nd (see Table I). Flexibility was added to the program this year in that a Capilano rearing trough was set up at Dawson's Landing so females and males could be flown off the river and held. The adult holding capability reduced risk associated with holding females in the river and/or of not being able to achieve egg targets due to weather/water conditions preventing broodstock capture or returning to the river to check females being held there. Field eggtakes were done at Dawson's Landing following Alaska protocol and the gametes flown to Snootli Hatchery in Bella Coola for fertilization, disinfection and plant. Samples were taken from the kidney of females used for broodstock so any egg lots suspect for Bacterial Kidney Disease could be isolated.

The crew was successful in obtaining a total of 29,183 eggs (Table II). These were shocked and picked in early January 2009 and survival to eyed was 86.5% (less than last year due to 2 poor females). The post eyed live inventory was 26,004 and kidney sample results were good so no eggs had to be discarded or segregated. Incubation was completed successfully and 25,770 fry were ponded in April 2009. Rearing continued to late September when fish were Ad clipped and CWT marked. A total of 24,732 fish were marked with less than 2% tag loss. The parr were moved to an aluminum Eagle trough right after marking and rearing continues with an overall survival to date of 84.6% average fish size of 10.44gms (on target). Vaccination of this group will occur this month (Jan 2010). At this point the plans are to follow the same final rearing strategy as that used for the 2007 brood.

TABLE II

JOHNSTON CREEK COHO PROGRAM BROOD SUMMARY INFORMATION UPDATE JANUARY 13, 2010						
BROOD YEAR SUCCESS	NUMBER EGGS OBTAINED	NUMBER ON HAND	TOTAL NUMBER RELEASED	RELEASE DATE	OVERALL SURVIVAL TO DATE	CURRENT OR SIZE @ RELEASE IN GRAMS
TARGETS & BIO STANDARDS						
	30,000		21,600	MID MAY	72%	20.0
2007	16,784	0	16145	08-May-09	96.2%	20.0
2008	29,183	24,681	0		84.6%	10.4
2009	24,705	24,106	0		97.6%	eyed egg
CWT MARKING						
	NUMBER MARKED		TOTAL NUMBER RELEASED	NUMBER RELEASED CWT & AD	NUMBER RELEASED AD ONLY	TAG LOSS AIM IS FOR <2%
2007	16,226		16,145	14,369	1,776	11%
2008	24,732	24,681				
NOTES:						
2007 = no expectations for meeting any egg target as this was "pilot" year for program - only 1 full day on river. Tag loss post marking due to large size of fish marked and improper sized nose mold						
2008 = egg target met but poor results from two females brought egg number down. Tagging done at smaller fish size and results good to date						
2009 = Second inventory completed and egg target was met but high BKD levels in one female lead to destruction of those eggs - the numbers above are from eggs kept						

2009 Brood

Broodstock capture and eggtakes occurred on Nov.24 and Dec.1 (see Table I). There were a total of 9 females and 13 males spawned for an eggtake total of 29,197. Field eggtakes were done on the river following Alaska

protocol and kidney samples taken from each female to send to PBS for disease sampling. Results from disease sampling have indicated that one female had a higher than acceptable level of BKD and those eggs have been destroyed (there is no conservation concern that would compel us to keep the eggs and deal with the risk associated with extended fish culture). Eggs from two other females with very low levels of BKD have been isolated and are considered low enough risk that they will be kept on site. The numbers in Table II do not include the eggs from the female with the high level of BKD. Survival to eyed in the eggs kept is excellent at 97.6% and the live balance on hand is 24,106.

BUDGET UPDATE

Table III gives an outline of expenditures to date. The entire allocation of \$40,000.00 has been spent.

TABLE III

EXPENTIDURES TO DATE	
CATEGORY	COST
EGG TRANSPORT (2008 & 1 flight for 09)	\$13,033.45
SMOLT TRANSPORT (2007 brood)	\$6,014.30
FACILITY	\$5,307.72
FISH FOOD	\$2,857.00
FISH FEEDER(S)	\$559.28
REARING NET&CROWDER NET	\$2,482.32
ADULT HOLDING TUBES	\$881.14
AERATION EQUIPMENT	\$600.00
REARING FLOAT ANCHOR SUPPIES	\$1,228.50
FIELD TECHS	\$1,212.60
FUEL	\$305.60
CWT MARKING (2007 & 2008 BY)	\$3,522.00
CWT TAGS	\$1,584.51
VACCINE&IODINE	\$354.25
MISC	\$57.33
TOTAL	\$40,000.00
TOTAL FUNDS REC'D	\$40,000.00
BALANCE DECEMBER 31, 2009	\$0.00

ACKNOWLEDGEMENT

Once again I would like to take this opportunity to thank the PSC for the financial support and willingness to extend the duration of the program so funds could be utilized over an extended period. This flexibility allowed for other partners to contribute private money – knowing it would not jeopardize the existing allocation. In fact, private funding has allowed for an egtake in 2009 and much of all the funding needed for extended rearing, marking, transport and release of the 2008 and 2009 broods.

We know that the PSC is considering the proposal for the 2010 brood and look forward to working with you to achieve releases of marked fish for four brood years and to document and celebrate the marked adult recoveries in the first year of expected returns in 2010.

A CD with video and digital pictures has been made and will accompany (by mail) the original of this document.



John Willis (DFO) and Bob Bachen of Dawson's Landing check female held in trough set up on the dock in 2008



Release of 2007 brood in May of 2009 in Johnston Bay – Smolts Leaving Pen