

## **STANLEY BASIN SOCKEYE TECHNICAL OVERSIGHT COMMITTEE**

### **MEETING SUMMARY**

**February 21, 2008**

**8:30 a.m. to 12:00 p.m.**

**Columbia Basin Fish & Wildlife Authority Building  
Portland, Oregon**

#### **List of Those in Attendance**

<b>Name</b>	<b>Affiliation</b>	<b>Phone</b>
Greg Baesler	Bonneville Power Administration	(503)230-7637
Dan Baker	Idaho Department of Fish and Game	(208)939-4114
Matt Campbell	Idaho Department of Fish and Game	(208)939-6713
Jeff Heindel	Idaho Department of Fish and Game	(208)939-4114
Christine Kozfkay	Idaho Department of Fish and Game	(208)939-6713
Mike Peterson	Idaho Department of Fish and Game	(208)465-8404
Melissa Baird	NOAA Fisheries	(206)302-2430
Carlin McAuley	NOAA Fisheries	(360)871-8314
Andy Kohler	Shoshone-Bannock Tribes	(208)239-4566
Doug Taki	Shoshone-Bannock Tribes	(208)239-4568
Bob Griswold	Sho-Ban Tribes (Biolines)	(208)481-1900

**NOTE: The meetings of the Stanley Basin Sockeye Technical Oversight Committee (SBSTOC) are intended to serve as a forum for open discussion of technical issues and technical recommendations to the Bonneville Power Administration. The opinions expressed by SBSTOC members and other meeting participants do not necessarily reflect the policies or views of their employers.**

**Stanley Basin Sockeye Technical Oversight Committee Meeting  
February 21, 2008 – Portland, Oregon  
Executive Summary**

**Introduction.**

Bonneville Power Administration's **Greg Baesler** thanked everyone for coming and opened the meeting with a review of the agenda, then the minutes from last meeting. The notes amended and approved, he continued down the agenda to the following updates:

**Idaho Department of Fish and Game Update.**

**Christine Kozfkay, Mike Peterson, and Dan Baker** presented information on current sockeye research activities, genetic monitoring, and provided inventory updates for the Idaho program.

**Shoshone-Bannock Tribes Update.**

**Doug Taki, Andy Kohler, and Bob Griswold** provided updates on Tribal research activities and lake limnology evaluations.

**NOAA Fisheries Update.**

**Carlin McAuley** provided an update for sockeye in culture at the Manchester and Burley Creek facilities.

**Bonneville Power Administration Update.**

**Greg Baesler** provided updates on current/upcoming activities and program-specific needs.

**The next SBSTOC meeting was set for the morning of Wednesday, June 11 at the NOAA Fisheries Manchester Research Station in Manchester, Washington.**

**1. Greetings and Introductions.**

BPA's **Greg Baesler** welcomed everyone to today's meeting and led a review of the agenda.

**2. Approval of November TOC Meeting Notes.**

The minutes were improved, then approved.

**3. IDFG Update.**

**Christine Kozfkay** led with an update of genetic investigations at the Eagle Fish Genetics Lab from **handout**):

1. Can we differentiate Kokanee from Sockeye Salmon? Yes!

106 of the 228 alleles examined are only found in Kokanee and 8 of the 228 alleles are only found in Sockeye.

Bayesian Genetic Assignment Test (STRUCTURE); K = 2  
95% - 99% confidence in assignment.

**Number of Fish Assigned as Sockeye/Kokanee using a Bayesian assignment test  
Proportions are in parentheses.**

	Sockeye	Kokanee	Unknown*	Total
Alturas Kokanee Spawners '05	0	45 (0.92)	4 (0.08)	49
Alturas Outmigrants '06	2	45 (0.94)	1 (0.02)	48
Alturas Trawl '06	0	44 (0.98)	1 (0.02)	45
No creel samples available	n/a	n/a	n/a	
<b>Pettit Creel '06</b>	23 (0.79)	5 (0.17)	1 (0.03)	29
Pettit Outmigrants '06	45 (0.94)	2 (0.04)	1 (0.02)	48
Pettit Trawl '00	0	51	0	51
Pettit Trawl '02	0	10	0	10
Pettit Trawl '03	2 (0.08)	24 (0.92)	0	26
Pettit Trawl '06	26 (0.58)	15 (0.33)	4 (0.09)	45
Pettit Residual Spawners '07	45 (0.98)	0	1 (0.02)	46
Fishhook Creek Kok '05	0	23 (0.92)	2 (0.08)	25
Redfish Outmigrants '06	46 (0.98)	1 (0.02)	0	47
Redfish Trawl '06	20 (0.42)	27 (0.56)	1 (0.02)	48
Redfish Creel '06	4 (0.14)	25 (0.86)	0	29
Eagle adult release in 07 (BY04)	150	0	0	150
Warm Lake	0	48	0	48
Stanley Lake	0	12	0	12

\*Unknown - had less than 90% confidence of assignment

Red - Creel, Blue - Trawl

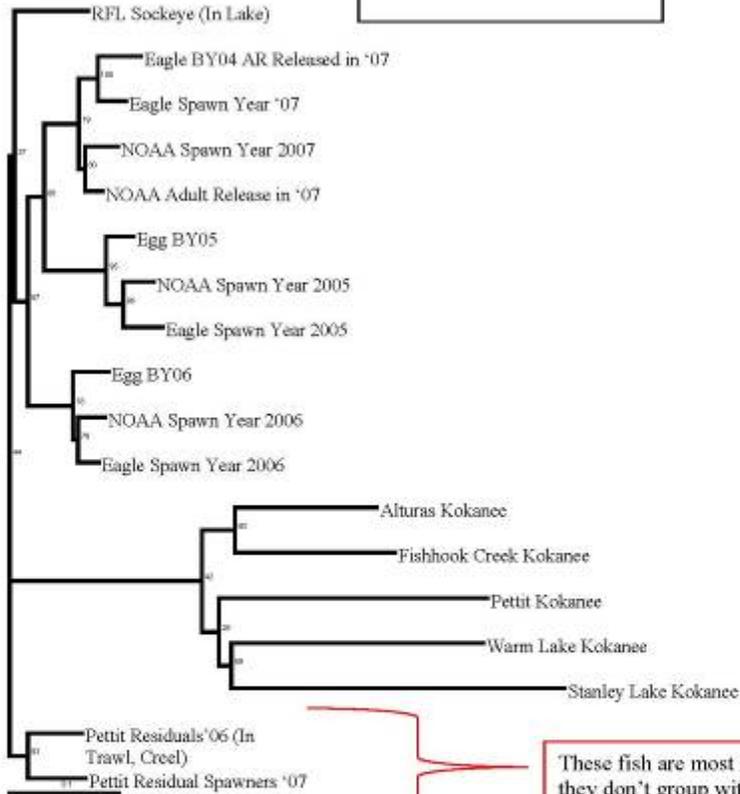
#### Results and Future Directions –

1. This data clearly indicates that we can differentiate kokanee from sockeye salmon in our collections.
2. This data also suggests that we do have a residual component of sockeye salmon in Pettit Lake. Mike Peterson will discuss the impacts of this finding on sockeye salmon harvest and permitting issues.
3. We included trawl data from '00, '02, and '03 to try to estimate when and from what groups the “residuals” came from. In 2000 and 2002, no residuals were found in the trawl. In 2003, 2 fish were identified as sockeye and 1 fish was identified as a 3-year old based on size. This fish probably came out of the 65,000 eggs released in 2000. Three of the 48 residuals sampled in 2007 had ad-clips taken indicating that they were part of a pre-smolt release in 2005.
4. We would like to determine if the residual fish are producing outmigrants in Pettit Lake or if most of the outmigrants are from egg-box or pre-smolt releases. In order to do this, we will need to do an exclusionary parentage analysis. We know that 57 Females and 70 Males were used to make the egg-boxes in 2006. We will need to collect ~400 fish in '08 and '09. Fish should be collected across the entire length of the run and be taken each day.

#### 2. Nearest Neighbor Analysis -

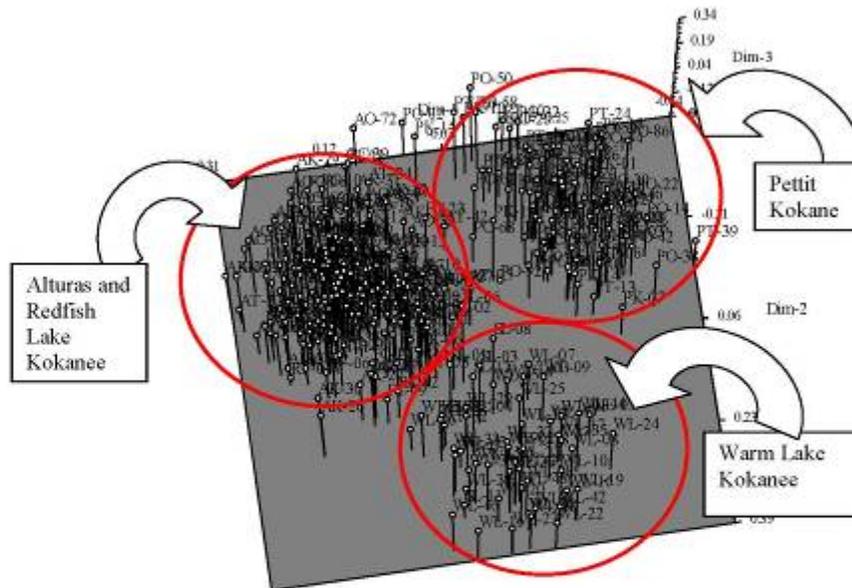
In order to do a nearest neighbor analysis, we needed to separate the kokanee from sockeye salmon in the collections (Trawl, Creel, Outmigrants) and used the results of STRUCTURE to do this. We also removed the “unknown” fish from this analysis. Stanley Lake and Warm Lake were included in this analysis along with all of the captive fish that we have analyzed to date.

RFL Sockeye (in Lake) is likely a mix of multiple brood years..



These fish are most likely BY03 fish yet they don't group with the other BY03 fish... They are most likely 2<sup>nd</sup> generation residuals from egg boxes in 1999 or a mix. All alleles present were also present in the broodstock.

PCA Analysis – with Kokanee fish from Alturas, Redfish Lake, Pettit, Stanley and Warm Lakes



Results and Future Directions.

1. Brood Years group together and indicate that there are some genetic differences among brood years (due to genetic drift, differences in ancestry).
2. Results indicate that kokanee from Alturas Lake and Redfish Lake are very similar (share 80% bootstrap support, low  $F_{st}$ , 1 cluster in PCA). Both of these populations were stocked with fish from Anderson Ranch Reservoir. These populations share a similar stocking history and may also have been historically very similar.

3. Pettit Lake fish are different than Alturas Lake and Redfish Lake Kokanee which is a reflection of the different stocking source (Northern Idaho fish with Oct. - Jan. spawning time).

4. Warm Lake and Stanley Lake fish appear to all be Kokanee (in all analyses). Kokanee were planted into Stanley Lake in the early 1990's (reared at the Mackay hatchery). IDFG personnel gill netted 50-100 mature late spawning kokanee in Warm lake in October 1990. Warm Lake was also stocked with "early spawning" kokanee in 1990. During the 1940s and 1950s from one to two million kokanee eggs were taken annually from Pend Oreille Lake and distributed around the state, including Big Payette Lake, Warm lake and in 1950 Anderson Ranch Reservoir. Warm Lake was stocked with kokanee between 1951 and 1962 (IDFG stocking records). Many of those were likely from Pend Oreille Lake.

5. The major differences we are seeing among kokanee stocks is likely due to different stocking histories and different mixtures of native and introduced stocks into these lakes.

6. Residuals in Redfish Lake and Pettit Lake may be good sources of diversity within the program and outmigrants collected from these lakes could potentially serve as genetic donors, if needed.

**Dan Baker** provided general hatchery inventory information for sockeye in culture at IDFG Eagle and Sawtooth facilities and updated the group on final spawn numbers for 2007 (from **handout**):

**Eagle Fish Hatchery**  
**February 21, 2008 Sockeye Inventory**

**BY03 BROODSTOCK / PRODUCTION INVENTORY:**

Broodstock eggs were selected by maximizing the representation of individual female and male spawners. A total of 418 eggs representing 208 females and 140 males were selected from specific spawn crosses to create this broodstock group. A replicate group of 419 eyed-eggs was shipped to NOAA Manchester Research Station.

- **BY03 EAGLE BROODSTOCK -** **2 Fish**
  - 0 mortality since 11/28/07 TOC.
  - Sample count @ Ultrasound 08/09/07 @ 1,158 grams/fish mean.

**BY04 BROODSTOCK / PRODUCTION INVENTORY:**

Broodstock eggs were selected by maximizing the representation of individual female and male spawners. A total of 507 eggs representing 100 females and 87 males were selected from specific spawn crosses to create this broodstock group. Due to IHNv in the anadromous spawners at Eagle Hatchery, NOAA Fisheries selected broodstock and adult release groups from spawn crosses made at Burley Creek Hatchery.

- **BY04 EAGLE BROODSTOCK -** **8 Fish**
  - Initial eyed-egg number: 507.
  - Total number ponded: 499
  - 0 mortality since 11/28/07.
  - Sample count @ Ultrasound 08/09/07 @ 1,107 grams/fish mean.

**BY05 BROODSTOCK / PRODUCTION INVENTORY:**

Broodstock eggs were selected by maximizing the representation of individual female and male spawners. A total of 808 (two groups of 404) eggs representing 121 females and 195 males were selected from specific spawn crosses to create the Eagle Hatchery captive broodstock group. A replicate group of 404 eyed-eggs was transferred to NOAA for their Captive Broodstock and a similar group of 496 eyed-eggs was transferred to NOAA for their Adult Release group.

- **BY05 EAGLE BROODSTOCK -** **402 Fish**
  - Initial eyed-egg number: 808.
  - Total number ponded: 794 (98.3% survival to pond).
  - PIT tagged broodstock 11/8 and 11/9/2006.
  - 1 mortality since 11/28/07.
  - 329 smolts released on 05/08/07 (100% ad clipped and PIT tagged).
  - Sample count 12/28/07: 733 grams/fish

**BY06 BROODSTOCK / PRODUCTION INVENTORY:**

Broodstock eggs were selected by maximizing the representation of individual female and male spawners. A total of 800 (two groups of 400) eggs representing 180 females and 166 males were selected from specific spawn crosses to create the Eagle Hatchery captive broodstock group. A replicate group of 400 eyed-eggs was transferred to NOAA for their Captive Broodstock and a similar group of 500 eyed-eggs was transferred to NOAA for their Adult Release group.

- **BY06 EAGLE BROODSTOCK -** **674 Fish**
  - Initial eyed-egg number: 800.
  - Total number ponded: 698
  - 2 mortalities since 11/28/07.
  - Group PIT tagged on 1/17/08.
  - Sample count on 2/1/08: 36.13 grams/fish.
- **BY06 SAWTOOTH PRODUCTION -** **73,933 Fish**

- Initial eyed-egg number transferred to SFH: 181,357
- Total number ponded: 179,543.
- Pre-smolts released on 10/2/07 & 10/3/07:
  - Pettit Lake: 10,113 @ 7.0 grams/fish
  - Alturas Lake: 9,977 @ 7.1 grams/fish
  - Redfish Lake: 62,015 @ 6.7 grams/fish
- Smolt over-winter group transferred outside on 10/9/07.
- Sample count on 2/01/08: 12.7 grams/fish.

➤ **BY06 ODFW: OXBOW PRODUCTION-**

**76,871 Fish**

- Initial eyed-egg number transferred to Oxbow: 80,042.
- Total number ponded: 78,906.
- Sample count on 2/01/08: 23.0 grams/fish.

**BY07 BROODSTOCK / PRODUCTION INVENTORY:**

Broodstock eggs were selected by maximizing the representation of individual female and male spawners. A total of 799 (two groups of 400) eyed-eggs representing 146 females and 148 males were selected from specific spawn crosses to create the Eagle Hatchery captive broodstock group. A replicate group of 400 eyed-eggs was transferred to NOAA for their Captive Broodstock and a similar group of 496 eyed-eggs was transferred to NOAA for their Adult Release group.

➤ **BY07 EAGLE BROODSTOCK -**

**799 Sac-fry**

- Initial eyed-egg number: 799.

➤ **BY07 SAWTOOTH PRODUCTION -**

**231,786 Sac-fry**

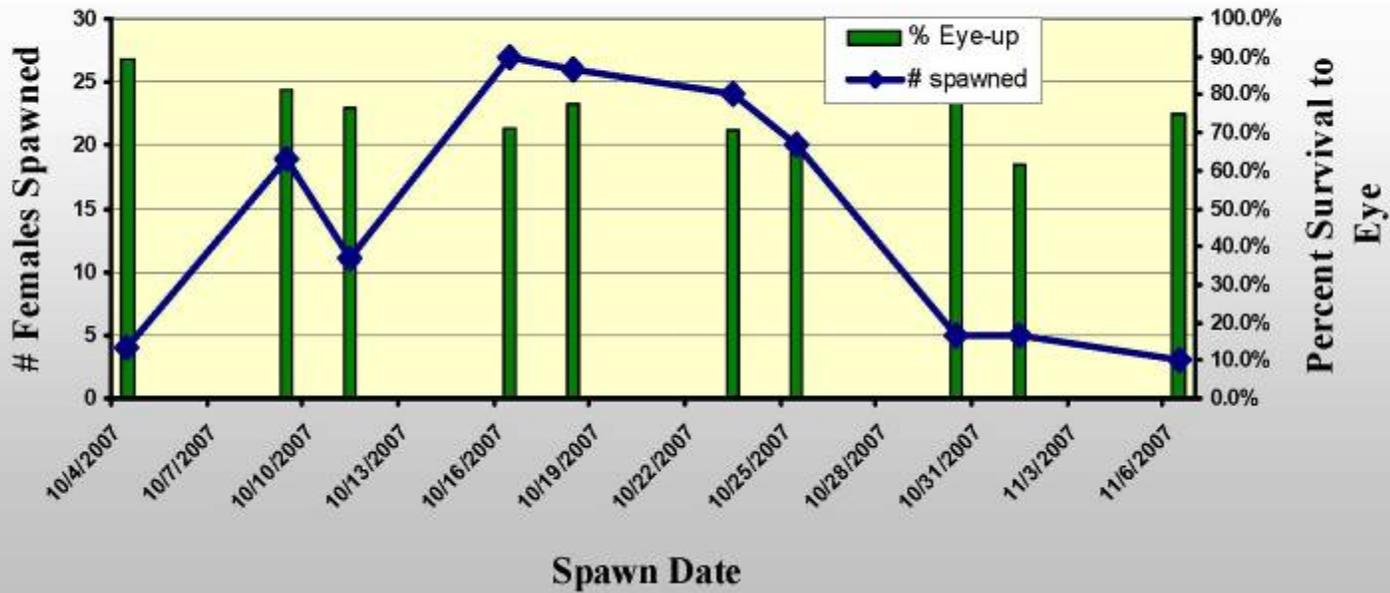
- Initial eyed-egg number transferred to SFH: 231,786

➤ **BY07 ODFW: OXBOW PRODUCTION-**

**80,958 Sac-fry**

- Initial eyed-egg number transferred to Oxbow: 80,958.

### 2007 Eagle Hatchery Captive Broodstock Summary



**Hatchery Female Data (BY04)**

Total Green eggs = 232,931  
 Total eyed eggs = 173,064  
 Mean weight = 1,069 g  
 Mean fecundity = 1,614 eggs  
 Mean survival to eye = 74.3%

**Anadromous Female Data (ANH07)**

Total Green eggs = 3,462  
 Total eyed eggs = 2,746  
 Mean weight = 1,424 g  
 Mean fecundity = 2,846 eggs  
 Mean survival to eye = 79.3%

Eagle Hatchery Eyed-egg Production for BY07 Redfish Lake Sockeye

Lot #	Spawn Date	# Females	Green Eggs	Eyed-eggs	% Eye-Up	Fecundity
1	04-Oct-07	4	7,162	6,402	89.39%	1,791
2	09-Oct-07	19	30,675	24,927	81.26%	1,614
3	11-Oct-07	11	18,086	13,807	76.34%	1,644
4	16-Oct-07	27	45,314	32,293	71.26%	1,678
5	18-Oct-07	26	41,523	32,179	77.50%	1,597
6	22-Oct-07	1	697	195	27.98%	697
7	23-Oct-07	24	37,907	26,808	70.72%	1,579
8	25-Oct-07	20	29,938	20,231	67.58%	1,497
9	30-Oct-07	6	10,350	9,154	88.44%	1,725
10	01-Nov-07	5	9,085	5,571	61.32%	1,817
11	06-Nov-07	3	5,658	4,243	74.90%	1,886
<b>TOTALS</b>		<b>145</b>	<b>236,393</b>	<b>175,810</b>	<b>74.37%</b>	<b>1,619</b>

Eyed-Egg Goals:	Actual	
Eagle Fish Hatchery:	800	799
NOAA Fisheries:		
Burley Creek Captive Brood:	400	400
Burley Creek Adult Release:	500	496
Sawtooth Fish Hatchery:	175,000	231,786
Oxbow Fish Hatchery:	60,000	80,958
Egg Boxes:		
Pettit Lake:	50,000	51,008
<b>TOTAL:</b>	<b>286,700</b>	<b>365,447</b>

Eagle Hatchery Eyed-egg Production for BY07 Redfish Lake Sockeye

Lot #	Spawn Date	# Females Spawned	Research*	Captive Broodstock			Production			Egg Boxes		Totals
				Eagle	NOAA	NOAA	To SFH	To Oxbow	To Pettit L	To Alturas L		
1	04-Oct-07	4	0	18	9	13	6,362	0	0	0	6,402	
2	09-Oct-07	19	0	92	46	61	24,728	0	0	0	24,927	
3	11-Oct-07	11	0	52	26	35	13,694	0	0	0	13,807	
4	16-Oct-07	27	0	149	75	88	31,981	0	0	0	32,293	
5	18-Oct-07	26	0	144	72	81	31,882	0	0	0	32,179	
6	22-Oct-07	1	0	7	3	3	182	0	0	0	195	
7	23-Oct-07	24	0	124	62	77	26,545	0	0	0	26,808	
8	25-Oct-07	20	0	119	60	77	19,975	0	0	0	20,231	
9	30-Oct-07	6	0	42	21	27	9,064	0	0	0	9,154	
10	01-Nov-07	5	0	34	17	23	5,497	0	0	0	5,571	
11	06-Nov-07	3	0	18	9	11	4,205	0	0	0	4,243	
<b>Eagle Hatchery Totals:</b>		<b>145</b>	<b>0</b>	<b>799</b>	<b>400</b>	<b>496</b>	<b>174,115</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>175,810</b>	
<b>NOAA Totals:</b>		<b>122</b>	<b>2,717</b>				<b>57,671</b>	<b>80,958</b>	<b>51,008</b>		<b>192,354</b>	

NOAA Eyed-egg Shipments:	
Oxbow Hatchery:	80,958
11.27.07 to Egg boxes:	51,008
Sawtooth Hatchery:	57,671
NOAA Research:	2,717
	<b>192,354</b>

**Mike Peterson** finished with summary information for Sawtooth Basin sockeye investigations in 2007 (from **handout**):

**IDFG Sockeye Research TOC NOTES for Portland (February 20, 2008)**

Here is a brief look at what we have done since the last TOC meeting.

Finalized trawling estimates for the basin lakes:

**Redfish Lake (Final)**

	Age 0	Age 1	Age 2	Age 3	Age 4	Total
<b>Pop Est. =</b>	<b>59,556</b>	<b>9,957</b>	<b>4,188</b>	<b>0</b>	<b>0</b>	<b>73,702</b>
Conf. Int. $\pm$ 95%	17,189	8,669	7,424	0	0	<b>24,195</b>
	28.86%	87.06%	177.26%	0.00%	0.00%	<b>32.83%</b>
<b>Biomass Estimates (kg)</b>						
	"Age 0"	"Age 1"	"Age 2"	"Age 3"	"Age 4"	<b>Total</b>
	101.35	116.88	297.37	0.00	0.00	<b>515.60</b>
<b>Standing Stock Estimates (kg/ha)</b>						
	"Age 0"	"Age 1"	"Age 2"	"Age 3"	"Age 4"	<b>Total</b>
	0.25	0.28	0.72	0.00	0.00	<b>1.25</b>
<b>BIOMASS CORRECTED TO 615 HECTARES</b>				<b>0.84</b> kg/ha		
<b>DENSITY CORRECTED TO 615 HECTARES</b>				<b>119.84</b> fish/ha		

**Alturas Lake (Final)**

	Age 0	Age 1	Age 2	Age 3	Age 4	Total
<b>Pop Est. =</b>	<b>52,056</b>	<b>59,874</b>	<b>9,301</b>	<b>2,843</b>	<b>0</b>	<b>124,073</b>
Conf. Int. $\pm$ 95%	31,432	21,078	7,789	2,311	0	<b>23,327</b>
	60.38%	35.20%	83.74%	81.31%	0.00%	<b>18.80%</b>
<b>Biomass Estimates (kg)</b>						
	"Age 0"	"Age 1"	"Age 2"	"Age 3"	"Age 4"	<b>Total</b>
	77.94	466.84	415.67	199.69	0.00	<b>1,160.13</b>
<b>Standing Stock Estimates (kg/ha)</b>						
	"Age 0"	"Age 1"	"Age 2"	"Age 3"	"Age 4"	<b>Total</b>
	0.37	2.20	1.96	0.94	0.00	<b>5.47</b>
<b>Corrected to 338 ha</b>						
<b>Biomass</b>	<b>3.43</b> kg/ha					
<b>Density</b>	<b>367.08</b> fish/ha					

**Pettit Lake (Final)**

	Age 0	Age 1	Age 2	Age 3	Age 4	Total
<b>Pop Est. =</b>	<b>0</b>	<b>4,355</b>	<b>10,390</b>	<b>0</b>	<b>0</b>	<b>14,746</b>
Conf. Int. $\pm$ 95%	0	5,911	2,305	0	0	<b>7,099</b>
	0.00%	135.72%	22.19%	0.00%	0.00%	<b>48.14%</b>
<b>Biomass Estimates (kg)</b>						
	"Age 0"	"Age 1"	"Age 2"	"Age 3"	"Age 4"	<b>Total</b>
	0.00	107.88	506.93	0.00	0.00	<b>614.82</b>
<b>Standing Stock Estimates (kg/ha)</b>						
	"Age 0"	"Age 1"	"Age 2"	"Age 3"	"Age 4"	<b>Total</b>
	0.00	0.94	4.41	0.00	0.00	<b>5.35</b>
<b>Corrected to 160 ha</b>						
<b>Biomass</b>	<b>3.84</b>	kg/ha				
<b>Density</b>	<b>92.16</b>	fish/ha				

## REDD Count Numbers

- I used the following numbers as final numbers for our NOAA permit report
- 84 areas of excavation located near the transfer dock (south and west side)
- 58 areas of excavation located at the south end near the snorkel transect (south and east side)
- 42 areas of excavation located on Sockeye beach at the north end of the lake
- 11 areas of excavation located between the net pen buoys and the point campground
- Lakewide Total = 195 areas of excavation

I was asked by NOAA Fisheries to estimate the number of outmigrants we should see emigrating from Basin lakes this year and this is what I came up with.

**Redfish Lake Sockeye Salmon Estimated Outmigration 2008**

Release Strategy	Number of pre-smolts planted	Survival to release	Number	Total age-1 survivors	Age-1 smolts	Total smolts
Redfish Lake Pre-smolts	62,015	1.00	62,015	15,504	14,729	14,729
Alturas Lake Pre-smolts	9,977	1.00	9,977	2,494	2,370	2,370
Pettit Lake Pre-smolts	10,113	1.00	10,113	2,528	2,402	2,402

Release Strategy	Number of females released	Average fecundity	Total eggs produced	Survival to hatch	Total fry produced	Total age-1 survivors	Age-1 smolts	Total smolts
Redfish Pre-spawn adults	232	2,100	487,200	0.5	243,600	11,449	10,877	10,877

Release Strategy	Number of eyed-eggs planted	Survival to hatch	Total fry produced	Total age-1 survivors	Age-1 smolts	Total smolts
Alturas Eyed-eggs	104,693	0.95	99,458	4,675	4,441	4,441
Pettit Eyed-eggs	47,839	0.85	40,663	1,911	1,816	1,816

Release Strategy	Number released
Redfish Release Smolt	76,947
Sawtooth Release Smolt	73,933

**Total Estimated Outmigration from the Stanley Basin**

Natural Origin (Eggs, Residual and Adult Release)

17,133

Hatchery Origin (Pre-smolts and smolts)

170,380

**Total 187,513** smolts

Used 53% to LGR and the average of .25% SAR to LGR

= **99,382** smolts to LGR and **248** Adults to LGR in **2010**

This is probably a low estimate (no idea of how many residuals present within three lakes) - but a place to start!

## Possible impacts to Basin kokanee fisheries using the current baseline data

Lake	Estimated <i>O. nerka</i> Harvest	Proportion of fish identified as sockeye in the creel <sup>1</sup>	Estimated # of Sockeye	Total Take	Permit Allows
Pettit Kokanee Fishery	37	79%	29	29	
Alturas Kokanee Fishery	204	0%	0	0	
Redfish Kokanee Fishery	222	14%	31	31	
<b>Total Estimated take for 2006</b>				60	34

<sup>1</sup> No estimate of sockeye from creeled fish for Alturas Lake

Lake	Estimated <i>O. nerka</i> Harvest	Proportion of fish identified as sockeye in the creel <sup>1</sup>	Estimated # of Sockeye	Total Take	Permit Allows
Pettit Kokanee Fishery	37	79%	29	29	
Alturas Kokanee Fishery	204	0%	0	0	
Redfish Kokanee Fishery	56	14%	8	8	
<b>Total Estimated take for 2007</b>				37	34

<sup>1</sup> No estimate of sockeye from creeled fish for Alturas Lake

## Redfish Lake Creel Info

Year	Effort	Combined <i>O. nerka</i> Catch Rates	Harvested <i>O. nerka</i> Catch Rate	Combined RBT Catch Rates	Highest Estimated <i>O. nerka</i> Catch Rate	Estimated <i>O. nerka</i> Harvest	Estimated Rainbow Harvest	RBT stocked
1959	19,000					2,880	24,768	
1986	15,449	0.06	0.06	0.04	0.09	921*	5,173	36,105
1987	12,507	0.2	0.2	0.4	0.7	1878*	4,699	21,363
1995	2,554	0.15	0.11		0.33	306		
1996	3,351	0.27	0.19	0	0.22	844	0	
1997	2,874	0.56	0.19	0	0.47	466	0	
1998	7,963	0.3	0.13			1,362		
1999	3,951	0.53	0.38	0.01	0.58	1,187	0	
2000	3,063	0.08	0.02	0.01	0.08	67	0	
2001	2,391	0.06	0.00	0.02	0.07	0	0	
2002	2,127	0.15	0.09	0.28	0.23	129	11	
2003	2,477	0.15	0.1	0	0.12	424	0	
2004	2,791	0.39	0.13	0.01	0.27	621	0	
2005	3,620	0.3	0.21	0.01	0.34	637	0	
2006	2,635	0.31	0.07	0.01	0.29	222	0	
2007	1,922	0.12	0.03	0.01	0.11	56	12	
<b>Average</b>	<b>4,645</b>	<b>0.24</b>	<b>0.13</b>	<b>0.06</b>	<b>0.28</b>	<b>486</b>	<b>4,936</b>	

## Alturas Creel Info

Year	Effort	Combined <i>O. nerka</i> Catch Rates	Harvested <i>O. nerka</i> Catch Rate	Combined RBT Catch Rates	Highest Estimated <i>O. nerka</i> Catch Rate	Estimated <i>O. nerka</i> Harvest	Estimated Rainbow Harvest	RBT stocked
1959	13,900					7,104	14,874	
1962						197	1037	
1986	12,577	0.005	0.005	0.09	0.007	64*	7,790	20,500
1987	10,126	0.01	0.01	0.04	0.01	150*	3,158	14,417
2000	5,190	0.06	0.03	0.17	0.04	407	890	8,165
2001	2,509	0.03	0.00	0.28	0.07	0	631	7,451
<b>Average</b>	<b>8,860</b>	<b>0.03</b>	<b>0.01</b>	<b>0.15</b>	<b>0.03</b>	<b>204</b>	<b>3,117</b>	

\*reported as both harvest and released

## Pettit Lake Creel Info

Year	Effort	Combined <i>O. nerka</i> Catch Rates	Harvested <i>O. nerka</i> Catch Rate	Combined RBT Catch Rates	Highest Estimated <i>O. nerka</i> Catch Rate	Estimated <i>O. nerka</i> Harvest	Estimated Rainbow Harvest	RBT stocked
1996	2,092	0.07	0.05	0.34	0.09	131	582	3,271
1997	1,939	0.04	0	0.26	0.05	0	437	3,000
1999	1,148	0.08	0.01	0.08	0.11	11	60	3,000
2002	791	0.02	0.01	0.2	0.02	6	109	3,001
<b>Average</b>	<b>1,493</b>	<b>0.05</b>	<b>0.02</b>	<b>0.22</b>	<b>0.07</b>	<b>37</b>	<b>297</b>	

# Upcoming

- Finish first draft of 2007 BPA report
- Prepare for field season
- PIT tagging both smolt release groups (late March- early April)
- Prepare presentation for the WDAFS meeting

**One final note: any objections to having UI radio tag a few more sockeye this year?**

## **4. Shoshone-Bannock Tribes Update.**

**Doug Taki** led with a summary of Shoshone-Bannock Tribe hydroacoustic data for Stanley Basin *O. nerka* populations, noting the scientific merits, validity, and widely-applied use of this method for characterizing the population, migration, and distribution patterns of pelagic fish species. Electronic copies were not available at press; please contact Doug Taki for additional information ([dtaki@shoshonebannocktribes.com](mailto:dtaki@shoshonebannocktribes.com)).

**Andy Kohler** and **Bob Griswold** followed with a summary of winter gill net sampling conducted in Pettit Lake and discussed kokanee control measures in Basin lakes (from **handout**):

Table 1. Results of Pettit Lake gillnet samples, 2008.<sup>1</sup>

Date	Station	Set type	(n) CPUE	Mean L (mm)	Mean W (g)	Hrs Fished	Genetic sample (n)	Stomach sample (n)
<b><u>Pettit Lake</u></b>								
<b>Rainbow Trout</b>								
January 20, 2008	A	horizontal	(7) 0.33	252.0	167.6	21.0	0	6
<b>Bull Char</b>								
January 20, 2008	E	horizontal	(4) 0.19	403.0	925.0	21.0	2	2
February 09, 2008	A	vertical	(2) 0.11	----	----	19.0	0	0
<b>Brook Char</b>								
January 20, 2008	A	horizontal	(1) 0.05	275.0	239.6	21.0	0	1
<b>Northern Pikeminnow</b>								
January 20, 2008	A	horizontal	(7) 0.33	267.0	239.4	21.0	0	6
<b><i>O. nerka</i></b>								
January 20, 2008	E	vertical	(6) 0.26	165.0	58.7	22.75	6	6
February 09, 2008	E	vertical	(11) 0.58	171.0	59.04	19.0	11	11
<b>Sockeye</b>								
January 20, 2008	E	vertical	(2) 0.09	111.0	16.6	22.75	2	2
February 09, 2008	E	vertical	(3) 0.16	129.0	28.3	19.0	0	3
<b><i>O. nerka</i> Kokanee spawner</b>								
January 20, 2008	A	horizontal	(11) 0.52	225.5	----	21.0	11	0

<sup>1</sup> SBT SBSTOC Feb 21 2008



ELISA: n/a

ELISA: n/a

**BY06**

Initial N= 500 from IDFG females. Rearing in freshwater.

Current inventory: 415

Weight: 30 g

PIT tagged 1/11/08

DNA/adipose fin clipped 2/6/08

Morts since last TOC: 0

% Survival (from eyed egg): 81.2

Morts since last TOC: 2

ELISAs: n/a

**BY07**

Initial N= 493 from IDFG females. Rearing in freshwater at BCH.

Current inventory: 486

Weight: n/a

Begin ponding 2/12/08. On 6.5 C water.

% Survival (from eyed egg): 98.6

Morts: 8 (1 post ponding)

**FINAL EGG PICK STATISTICS**

Spawn date	Females	N females	N green eggs	N eyed eggs	Ave viability	ave fecundity
9/28/07F1		1	3017	859	28.5	3017
10/5/07F2-F9		8	18532	11716	63.2	2394
10/10/07F10-F21		11	27645	22687	82.1	2411
10/16/07F22-F39		18	37077	26572	71.7	2060
10/17/07F40-F49		10	22990	15691	68.2	2299
10/18/07F50-F55		6	11363	7273	64.0	1894
10/22/07F56-F67		12	26669	19423	72.8	2222
10/23/07F68-F74		7	14383	12273	85.3	2055
10/29/07F75-F86		12	26354	18403	69.8	2196
10/30/07F87-F97		11	25133	18633	74.1	2285
10/31/07F98-F105		8	17583	13222	75.2	2198
11/6/07F106-F116		11	24149	19132	79.2	2381
11/7/07F117-F120		4	6631	3177	47.9	2015
11/14/07F121-F125		3	5207	4827	92.7	2212
<b>Totals:</b>		<b>122</b>	<b>266733</b>	<b>193887</b>	<b>72.7</b>	<b>2209</b>

Females F1 and F10 were from BY03.

**EGG SHIPMENTS:**

**OXBOW HATCHERY:**

11/16/07N = 35,263

11/24/07N = 20,259

12/18/07N = 25,436

80,958

**SAWTOOTH HATCHERY:**

11/24/07N = 38,323

12/6/07 N = 43,889

82,212

**EGGBOXES:**

11/24/07N = 22,647

12/6/07 N = 3,628

26,275

**USGS/Dr. Gael Kurath:**

12/19/07 N = 4,418

(3,150 of these were too late for eggbox outplanting.)

## **6. BPA Update.**

**Greg Baesler** provided a brief update on realignments in the BPA F&W group and noted that changes should be completed by the end of March. **Baesler** added that BPA is gearing up for the next integrated program review to establish funding levels for 2010 and 2011. **Baesler** followed with a summary of contractor permitting needs for the PISCES system and finished by setting the date/time of the next SBSTOC meeting.

## **7. Next TOC Meeting Date.**

The next SBSTOC meeting was set for the morning of Wednesday, June 11<sup>th</sup> at the NOAA Fisheries Manchester Research Station in Manchester, Washington. Meeting summary prepared by Jeff A. Heindel, IDFG Eagle Fish Hatchery.