



## Gitksan Watershed Authorities

### Project Updates

July 2016

#### Slamgeesh Smolt Program 2016

Two fyke velocity traps began timely smolt trapping on April 25<sup>th</sup>. In 2016 the sockeye smolt outmigration and the ice melt was two weeks earlier than the previous average. Water temperatures at the fence have already reached 18 C on June 28<sup>th</sup> (currently down again to 15 C) with minimum water levels observed, similar to 2013 and 2015. The previous average water temperature to this date (since 2000) is around 13 C. Smolt sampling included adipose fin clipping, taking random stratified lengths and weights and scale collections. Preliminary smolt population estimates (modified Petersen Mark Recapture (Seber (1982))) are:

- 18,929 Sockeye smolts  $\pm$  1,551 (16% trap efficiency)

(previous average since 2000 is ~17,700, outmigration has ranged from 9,279 to 36,883)

- Coho smolts will be around 60,000 smolts (previous average since 2000 is ~43,600, outmigration has ranged from 18,900 to 75,500)

#### Sockeye

The majority of the 2016 sockeye smolt count is derived from the 2014 brood year which had an escapement of 499 large sockeye (246 females). The 2014 brood year production estimate is in the range of **70 to 83 smolts per female**. The average for the past decade ( $n=7$ ) is 96 smolts per female. This is a fair production result compared to recent years (27 and 38 smolts per female for brood years 2012 and 2013) and compared to other wild Skeena stocks like Kitwanga which continue to estimate extremely low smolts per female.

#### Coho

A tiny coded wire tag (CWT) is implanted into the nose of every adipose fin clipped coho smolt and the total output to date is 5993 (adjusted for 85% tag retention and 100% survival). The marked releases are intended to provide coho marine harvest rate estimates through large recovery programs. Returning adult coho will be checked for adipose fin clips to calculate smolt to adult spawner survival rates (previously this has ranged from 2.7% to 6.8% since 2002).

#### Slamgeesh Adult Fence Program

The 2016 adult fish weir will be assembled in late July and run until the end of October. Low water levels and high temperatures are a concern this year for sockeye migrations and spawner success. Brood year 2013 had only 55 female sockeye which raises concern again for return numbers in 2017 and 2018.



Measuring  
water  
velocity  
(James  
Mcrae)

#### Water and Fish Habitat Baseline

Work continued through July downloading water level and temperature data. Maintenance was performed on stations that needed it and all were resurveyed to insure that they didn't move through the winter months. A highline was installed on Shegunia River to assist with high water discharge measurements.

## Administration Office Open House



July 30<sup>th</sup> marks the one year anniversary that the new administration building has been open in Kispiox. On Friday June 23<sup>rd</sup> we had an Open House to celebrate this event. We would like to thank everyone that attended and all the staff that worked to make this event a success.

## Highline across the Shegunia River



## Gitksan Ranger and Monitors

The Section 35 fishery has been going for almost 7 weeks now, and it has been a busy time for us, we had two boats break down on us, we have one of them back now and it is back on the river. The GWA would like to thank all those that continue to allow our monitors to collect data, as well as those who fill out the set net log book on a regular basis. Here is a look at the catch data we have up to date so far.

## 2016 GITKSAN preliminary estimates

Wk	Effort (Sets)	Sockeye	Chinook	Jack Chinook	Pink	reles	Steelhead	reles	Coho	reles	Chum	reles
23	74	0	123	11	0	0	11	0	0	0	0	0
24	117	3	76	12	0	0	4	0	0	0	0	0
25	190	170	496	64	0	0	8	0	1	0	0	0
26	284	1697	698	248	0	0	2	0	0	0	0	0
27	312	7176	535	271	0	0	0	0	7	0	0	0
28	404	9730	361	117	6	3	16	0	7	0	1	0
<b>Total</b>	<b>1381</b>	<b>18776</b>	<b>2289</b>	<b>723</b>	<b>6</b>	<b>3</b>	<b>41</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>1</b>	<b>0</b>



GWA Staff



Gitksan Chiefs



Monitoring Staff