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## **2018 NASS RIVER SALMON STOCK ASSESSMENT UPDATE – MONDAY, 9 JULY**

The following is the fourth general public update for 2018 of Nass River salmon and summer-run steelhead stock assessments from the Nisga'a Lisims Government Fisheries and Wildlife Department.

**All data presented in this update are preliminary and subject to change with further assessment information that becomes available and should be interpreted cautiously. For in-season assessment purposes only.**

### **NASS RIVER ASSESSMENT OPERATIONS UPDATE**

#### **OPERATIONAL ASSESSMENT INFORMATION FOR 2018**

1. **Fishwheel Assessment data:** 1 June to 8 July. Data summary below.
2. **Meziadin Fishway data:** Operations began on June 30.
  - Counts to 8 July: 486 large Sockeye including 3 tagged fish (below 94-17 average – 2,925).
3. **Kwinageese Weir data:** Video-weir operations began on 5 July.
  - Count to 8 July: 3 large Chinook and 1 Bull Trout.

#### **GITWINKSIHLKW (GW) FISHWHEELS (NASS TEST FISHERY –STARTED IN 1994 [25th year]):**

The Nass River test fishery fishwheels began operation on 1 June for tagging and historical catch index assessments for salmon and summer-run steelhead. All fish caught in the GW fishwheels to date were released alive after tagging and/or counting. Fishwheels 1 and 2 are currently operating at 1.1 m lower than average water levels (1.7 m vs. 2.8 m) based on 1994–2017 operations after operating at record low water levels (up to 2.4 m lower than historical averages) from 1–17 June. A chart of the water levels at the test fishery follows the text summary that compares current levels to historical levels. The Nass River water temperature is 0.7 °C above average (10.2°C vs. 9.5°C) based on the 1994–2017 operations.

#### **GREASE HARBOUR (GH) FISHWHEELS:**

Start-up dates of the GH fishwheels were on 5 June (FW5), 6 June (FW6), 7 June (FW3), and 15 June (FW4) for operating four fishwheels at Grease Harbour (upstream of Ts'im Anwiihlist). The GH fishwheels are used for in-season mark-recapture tag recoveries, abundance estimates passing upstream, additional tagging (adult Chinook and Chum salmon, and Pacific Lamprey), and for selective harvesting when permitted by Nisga'a Lisims Government.

Of the 4,355 Sockeye caught at all fishwheels to date, all have been released. The Nass fishwheel catches are currently below average for Sockeye, Chinook, and steelhead, and above average for pink, chum and Pacific Lamprey. Weekly comparisons of salmon and steelhead catches at the fishwheels to historical levels since 1994 follow the text summary as well as a catch summary of all fish species to date. Total fishwheel catches of salmon, steelhead, and Pacific Lamprey to date are shown below including tagging results and jacks caught.

FISHWHEEL CATCH SUMMARIES	SOCK	CHIN	COHO	STEEL	PINK-EVE	CHUM	LAMP
FISHWHEEL TOTAL CATCH OF ADULTS	4,355	624	0	7	2	3	319
HISTORICAL AVG CUM CATCH (00-17) TO DATE	12,000	3,000	0	10	0	0	100
HISTORICAL AVG CUM TOTAL CATCH (00-17)	43,000	5,000	14,000	1,000	13,000	130	600
AVERAGE DAILY CATCH (5 D) OF ADULTS - GW	107	4	0	0	0	0	4
AVERAGE DAILY CATCH (5 D) OF ADULTS - GH	220	19	0	0	0	0	24
FISHWHEEL TOTAL TAGGED (OR ADIPOSE FIN MARKED)	1,423	585	0	1	1	1	276
FISHWHEEL TOTAL JACKS - GW ONLY	1,123	169	0	NA	NA	NA	NA
HISTORICAL MEAN JACKS AT GW (94-17) TO DATE	315	91	0	NA	NA	NA	NA

Other adult species and juvenile salmon catches at the fishwheels to date include: 51 Whitefish, 47 Rainbow Trout, 23 Peamouth Chub, 20 Pikeminnow, 20 Redside Shiner, 12 Sculpin, 8 Cutthroat Trout, 3 Seals, and 34 salmon smolts (1 Coho, 3 Chinook, 30 Sockeye).

### RUN SIZE AND ESCAPEMENT ESTIMATES FOR NASS SALMON & SUMMER-RUN STEELHEAD

In-season estimates of run size and projected forecasts to Gitwinksihlkw fishwheels for adult Nass salmon and summer-run steelhead are shown below and are based on historical catch index and mark-recapture methods. The current run sizes for 2018 are currently below average for Nass Sockeye and Chinook salmon and just above average for summer-run steelhead when compared to means to date from 1994 to 2017. Summer-run steelhead estimates began on 1 July and run size targets are based on minimum return goals as steelhead will enter the Nass River after the fishwheels shutdown in mid-September.

	SOCK	CHIN	COHO	STEEL
<b>IN-SEASON RUN SIZE ESTIMATE TO DATE</b>	<b>74,517</b>	<b>7,480</b>	-	<b>34</b>
HISTORICAL MEAN RUN SIZE TO GW FOR DATE (94-17)	98,000	16,000	-	20
<b>RUN SIZE TARGET 2018 (MIN. FOR STEELHEAD)</b>	<b>250,000</b>	<b>15,000</b>	<b>65,000</b>	<b>4,200</b>

In-season forecast projections above Gitwinksihlkw are shown below. Estimates to Gitwinksihlkw are based on two methods, mean run timing and log-regression of the in-season to final estimates to date.

The current run size projection for Nass Sockeye is ranging between 170,000 and 350,000 to reach the run size goal (250,000) based on the in-season to final method with a point estimate of 260,000 based on 34% of the run entered to date based on mean-run timing. The current run size projection for Nass Chinook is ranging between 8,000 and 15,000 to reach the run size goal (15,000) based on in-season to final method with a point estimate of 11,000 based on 79% of the run entered to date based on mean-run timing. Of note, by 8 July, in-season run size forecasts for Nass Sockeye are performing well (mean absolute percent accuracy 82%; range=51–98% from 1994 to 2017). For in-season Chinook estimates to 8 July, mean percent accuracy is poorer (70%; range: 12–98% from 1999 to 2017) than Sockeye but a reasonable indicator of abundance to date.

IN-SEASON FORECASTS TO GW - METHODS:	SOCK	CHIN	COHO	STEEL	8-Jul-18
1. RUN TIMING METHOD (94-17) - Mean Run timing	218,000	9,000	Too Early	Too Early	
Lower (-2 S.D.)	136,000	7,000	Too Early	Too Early	
Upper (+2 S.D.)	436,000	14,000	Too Early	Too Early	In-season to Final
2. IN-SEASON TO FINAL (regression):	260,000	11,000	Too Early	Too Early	r <sup>2</sup> (CH) = 0.91
95% CI - lower	170,000	8,000	Too Early	Too Early	r <sup>2</sup> (SO) = 0.48
95% CI - upper	350,000	15,000	Too Early	Too Early	r <sup>2</sup> (CO) =
<b>GW RUN SIZE TARGET (DEPENDING ON HARVESTS ABOVE GW)</b>	<b>250,000</b>	<b>15,000</b>	<b>65,000</b>	<b>4,200</b>	r <sup>2</sup> (ST) =
Run Timing % Return Estimate to GW	34%	79%	0%	0%	

Net Escapement Estimates for adult Nass salmon and summer-run steelhead to date are shown below and relative to the Upper Nass net aggregate escapement goals.

IN-SEASON NET ESCAPEMENT ESTIMATES	SOCK	CHIN	COHO	STEEL
HARVEST ESTIMATES ABOVE GW TO DATE	420	705	-	-
<b>NET ESCAPEMENT (ABOVE GW):</b>	<b>74,097</b>	<b>6,775</b>	-	<b>34</b>
NET ESCAPEMENT TARGET (UPPER RIVER ONLY)	200,000	13,000	60,000	4,000

## HARVEST ESTIMATES FOR ADULT NASS SALMON & STEELHEAD

ALASKAN FISHERIES IN SE ALASKA (information courtesy from ADFG's website):

Alaskan gillnet fisheries start dates in 2018: District 101 (Tree Point) and District 106 (Sumner and Upper Clarence) opened on 17 June. Alaskan seine fisheries start dates in 2018: District 101 (Lower Clarence/Revilla) on 1 July; District 102 (Middle Clarence) on 17 June; District 103 (Cordova) – not open yet, and District 104 (Noyes/Dall) – not open yet. The table below shows the current estimates of catches of salmon in Alaskan net fisheries in Districts 101–106 (and mean catch comparisons from 2000 to 2017) to week ending **7 JULY 2018** based on data from ADFG. Current salmon catches are below average for all species except for Chinook which is average. Of the total in-season Sockeye catch reported in Alaskan fisheries to date (10,060), approximately 4,000 (40%) are estimated as Nass origin based on mean stock composition estimates from 1982 to 2017 and are currently below average (24,000) to date. The average total mean harvest of Nass Sockeye in Alaskan fisheries from 2000 to 2017 was 120,000 (range: 28,000–300,000).

IN-SEASON SE ALASKAN CUM. SALMON CATCH ESTIMATES (ADFG WEBSITE) - 2018								WEEK END:		7-Jul-18	
DISTRICTS	AREA	SOCK CATCH	AVG (00-17)	CHIN CATCH	AVG (00-17)	PINK CATCH	AVG EVE (00-16)	CHUM CATCH	AVG (00-17)	COHO CATCH	AVG (00-17)
DIST 101 GN	TREE PT	4,400	28,000	1,100	1,000	1,500	18,400	43,000	50,000	180	2,200
DIST 106 GN	UPP. CLAR	4,000	25,000	1,200	900	3,000	18,000	20,000	32,000	4,100	15,000
DIST 101 SN	LOW CLAR	300	500	0	0	1,000	20,000	10,000	5,300	0	300
DIST 102 SN	MID CLAR.	1,360	3,700	0	400	4,600	35,700	92,000	116,000	1,900	5,800
DIST 103 SN	CORDOVA	0	0	0	0	0	0	0	0	0	0
DIST 104 SN	NOYES/DALL	0	1,000	0	0	0	4,000	0	2,000	0	2,000
<b>CUMULATIVE TOTAL</b>		<b>10,060</b>	<b>58,200</b>	<b>2,300</b>	<b>2,300</b>	<b>10,100</b>	<b>96,100</b>	<b>165,000</b>	<b>205,300</b>	<b>6,180</b>	<b>25,300</b>

CANADIAN COMMERCIAL NET FISHERIES IN AREA 3 (information courtesy from DFO Prince Rupert):

Area 3 commercial net fisheries started on 25 June 2018 for gillnets. Total net fisheries conducted in Area 3 to date are four gillnet fisheries. Next commercial net fisheries announced in Area 3: 11 July (seine) with non-retention of Sockeye, Chinook, and steelhead. Commercial net harvest and release data to **8 JULY 2018** for salmon and steelhead in Area 3 are shown below:

GEAR	DATE	Vessel days	SO		CO		PK		Chum		CH		STEEL-Rel
			harv	Rel	HARV	Rel	HARV	Rel	harv	Rel	harv	Rel	
GN	6/25/2018	120	3,602	0	8	0	8	0	1,509	39	0	198	4
	6/26/2018	57	1,204	0	0	0	1	0	109	5	0	9	4
	7/2/2018	99	2,930	0	70	0	250	0	2,713	256	0	85	0
	7/3/2018	97	2,482	0	74	0	361	0	2,641	25	0	48	0
<b>GN Total</b>		<b>373</b>	<b>10,218</b>	<b>0</b>	<b>152</b>	<b>0</b>	<b>620</b>	<b>0</b>	<b>6,972</b>	<b>325</b>	<b>0</b>	<b>340</b>	<b>8</b>
SN	7/5/2018	21	164	0	16	0	332	0	1,420	0	0	99	0
<b>SN Total</b>		<b>21</b>	<b>164</b>	<b>0</b>	<b>16</b>	<b>0</b>	<b>332</b>	<b>0</b>	<b>1,420</b>	<b>0</b>	<b>0</b>	<b>99</b>	<b>0</b>
<b>Grand Total</b>		<b>394</b>	<b>10,382</b>	<b>0</b>	<b>168</b>	<b>0</b>	<b>952</b>	<b>0</b>	<b>8,392</b>	<b>325</b>	<b>0</b>	<b>439</b>	<b>8</b>

Of the total commercial catch (10,382) of sockeye in Area 3 to date, NFWD is estimating approximately 10,195 are of Nass origin (98.2%) based on stock composition modeling. The average total mean harvest of Nass Sockeye in Canadian commercial net fisheries in Areas 3–5 from 2000 to 2017 was 84,000 (range: 11,000–280,000).

DFO plan to implement management actions in Area 3 to reduce harvest impacts on the Kwinigeese Sockeye stock during their migration through Area 3 in mid-July. The Nass Sockeye stock requires rebuilding from a past spawning barrier detected in 2011 that resulted in extreme poor returns in 2013 (only 397 spawners) and 2014 (only 498 spawners). Sockeye retention will not be permitted in commercial fisheries in Area 3 from approximately **9 July to 22 July** (Weeks 28 and 29), the anticipated peak of the Kwinigeese Sockeye migration, as documented in DFO's 2018 Integrated Fisheries Management Plan (IFMP).

## NISGA'A DOMESTIC (FSC) AND SALE FISHERIES:

Nisga'a domestic and sale fisheries are monitored by the Nisga'a Fisheries and Wildlife Department and began on 6 May 2018. Cumulative harvests to week ending **30 JUNE** are shown in the table below for Food, Social, and Ceremonial (FSC) catches. For the same week ending period, mean cumulative harvests from 2000 to 2017 are shown for comparison. The current total harvests estimated in 2018 to date, including Nisga'a marine sale fisheries that occurred on 28–29 June and 5–6 July, are below average for all Nass salmon and steelhead (see table below).

FSC Reported Week Ending Period		DOMESTIC (FSC) HARVESTS TO WK END - 2018		TOTAL HARVESTS TO DATE INCLUDING SALE FISHERIES - 2018	
NASS SPECIES	Wk end	Harvest	Mean*	Harvest	Mean*
CHINOOK	30-Jun-18	2,141	3,000	2,141	4,100
SOCKEYE	30-Jun-18	2,697	7,600	8,081	34,000
PINK	30-Jun-18	2	120	271	1,500
COHO	30-Jun-18	0	3	0	0
CHUM	30-Jun-18	2	80	2	100
STEELHEAD	30-Jun-18	22	60	22	70

\* Mean harvests from 2000-2017 for week end periods. Harvests include all gear types estimates (net, angling, seine, etc.).

### Nisga'a Sale fishery information to date:

- Total Individual-sale (IS) fisher permits issued in 2018 to date are 116 (including 45 elder permits). Of the permits issued, 21 fishers have participated in IS fisheries to date.
- Summary of permits issued by community are: 39 Gitlaxt'aamiks, 21 Gingolx, 15 Laxgalts'ap, 14 Gitwinksihlkw, 13 Prince Rupert, 9 Terrace, and 5 other areas.
- Next fisheries are: **9 July** and **10 July** in-river sale fisheries (10 hr; 8:00-18:00 hrs) for Nass Sockeye salmon with closures above the entrance to Grease Harbour canyon to protect Nass Chinook passage.
- Individual-sale fishery data to date is as follows:

NISGA'A MARINE SALE FISHERY:			
NUMBER OF NISGA'A MARINE FISHERIES (16 HR OPENINGS):		4	JUNE 28, JUNE 29, JULY 5, JULY 6
DATA FROM JUNE 28 FISHERY (21 BOATS; 12 FISHERS SOLD) - REVIEWED			809 SOCKEYE
DATA FROM JUNE 29 FISHERY (17 BOATS; 21 FISHERS SOLD) - REVIEWED			2,147 SOCKEYE
DATA FROM JULY 5 FISHERY (18 BOATS; 8 FISHERS SOLD) - PRELIMINARY			617 SOCKEYE AND 24 PINK
DATA FROM JULY 6 FISHERY (17 BOATS; 19 FISHERS SOLD) - PRELIMINARY			1,811 SOCKEYE AND 245 PINK
NEXT NISGA'A MARINE FISHERY PLANNED:			<b>CLOSED FROM JULY 9 TO JULY 22</b>

The total harvest summary of Nass salmon and steelhead to date in all of the Nisga'a harvest fisheries is as follows:

NISGA'A TOTAL HARVEST SUMMARY	SOCK	CHIN	COHO	PINK-EVE	CHUM	STEEL
MARINE SALE FISHERY TOTAL	5,384	0	0	269	0	CLOSED
IN-RIVER SALE FISHERY TOTAL	0	0	0	0	0	CLOSED
<b>INDIVIDUAL SALE (IS) FISHERY TOTAL</b>	<b>5,384</b>	<b>0</b>	<b>0</b>	<b>269</b>	<b>0</b>	<b>CLOSED</b>
NLG COMMUNAL SELECTIVE TREATY FISHERY - GH FISHWHEELS	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
NLG COMMUNAL SELECTIVE TREATY FISHERY - SEINE	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
<b>DOMESTIC (FSC) GILLNET FISHERY - WK END: JUNE 30</b>	<b>2,697</b>	<b>2,141</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>22</b>
<b>SUB TOTAL (NLG TREATY FISHERIES)</b>	<b>8,081</b>	<b>2,141</b>	<b>0</b>	<b>271</b>	<b>2</b>	<b>22</b>
NLG SOCK DEMONSTRATION FISHERY HARVEST - DFO INVENTORY	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
<b>GRAND TOTAL</b>	<b>8,081</b>	<b>2,141</b>	<b>0</b>	<b>271</b>	<b>2</b>	<b>22</b>

## TOTAL RETURN TO CANADA (TRTC) AND NISGA'A ENTITLEMENT ESTIMATES FOR NASS SALMON

### Pre-season TRTC and Nisga'a entitlement forecasts:

Based on the preliminary Nass salmon return and age information from 2017, preliminary forecasts for Nass salmon and Nisga'a entitlement allocations for 2018 were calculated using pre-season forecast models.

Forecast models used were a combination of sibling (Sockeye and Chinook only) and brood year mean returns that project 25%, 50%, and 75% probability point estimates. Mean absolute accuracy for pre-season total run predictions to actual are 80% for Nass Sockeye, 69% for Chinook, 52% for Pink, 62% for Coho, and 71% for Chum from 2002 to 2017.

Pre-season TRTC forecasts (50% probability estimates) for 2018 predict a below average return forecast for Nass Sockeye (377,000 vs. 570,000), Nass Area even-year Pink (635,000 vs. 740,000), Nass Chinook (19,000 vs. 31,000), Nass Chum (33,000 vs. 52,000; well below the 45,000 escapement goal), and above average return forecast for Nass Coho (223,000 vs. 200,000) based on mean TRTC estimates from 1994 to 2017. When reviewing Nass salmon returns over a 34-year period (1985–2017), the forecasted returns in 2018 are projected to be poor for Chinook (28<sup>th</sup>), Sockeye (27<sup>th</sup>) and Chum (22<sup>nd</sup>); fair for Pink (17<sup>th</sup>); and good for Coho (10<sup>th</sup>) with caution for Coastal Nass Coho salmon returns that returned in low numbers in 2015.

PRE-SEASON TRTC & ENTITLEMENT FORECASTS	SOCK	CHIN	COHO	PINK-EVE	CHUM
HISTORICAL MEAN TRTC (1994-2017)	570,000	31,000	200,000	740,000	52,000
PRE-SEASON TRTC FORECAST (50% PROBABILITY)	<b>377,000</b>	<b>19,000</b>	<b>223,000</b>	<b>635,000</b>	<b>33,000</b>
PRE-SEASON NISGA'A ENTITLEMENT	57,000	4,000	17,800	65,000	2,640
CUM NISGA'A UNDERAGE (+)/OVERAGE (-) AVAILABLE OR OWED: 2000-17	4,109	no surplus	3,988	16,356	-1,198
TOTAL PRE-SEASON NISGA'A CATCH POTENTIAL	<b>61,000</b>	<b>4,000</b>	<b>22,000</b>	<b>81,000</b>	<b>1,400</b>

#### In-season TRTC and Nisga'a entitlement estimates for Nass salmon:

Preliminary in-season TRTC estimates estimated by NFWD for Nass Sockeye and Chinook are 250,000 (170,000–470,000) and 12,000 (9,000–18,000), respectively, based on preliminary harvest and run size data and mean run timing to date (Sockeye 37% and Chinook 73%) to Area 3 with standard deviation range estimates from 1994 to 2017 returns. The current in-season TRTC estimates are currently tracking below pre-season forecasts for Nass Sockeye and Chinook salmon with ranges indicating returns that are early or late.

Current Nisga'a entitlement ranges for: Nass Sockeye is between 22,000 and 89,000 with a current harvest estimate of 8,081 to date, and for Nass Chinook, between 2,000 and 4,000, with a current harvest of 2,141.

IN-SEASON TRTC & ENTITLEMENT ESTIMATES	SOCK	CHIN	COHO	PINK-EVE	CHUM
PROJECTED TRTC BASED ON MEAN RUN % & MR EST.	<b>250,000</b>	<b>12,000</b>	Pre-season	Pre-season	Pre-season
ESTIMATED %TRTC TO DATE: MEAN. RUN TIMING	37%	73%		0%	0%
Lower (-2 S.D.)	170,000	9,000	Pre-season	Pre-season	Pre-season
Upper (+2 S.D.)	470,000	18,000	Pre-season	Pre-season	Pre-season
IN-SEASON NISGA'A ENTITLEMENT TARGET	<b>33,000</b>	<b>2,500</b>	<b>18,000</b>	<b>65,000</b>	<b>2,600</b>
IN-SEASON UNDERAGE (+)/OVERAGE (-) AVAILABLE OR OWED	4,109	no surplus	3,988	16,356	- 1,198
TOTAL IN-SEASON NISGA'A TREATY CATCH POTENTIAL	<b>37,000</b>	<b>2,500</b>	<b>22,000</b>	<b>81,000</b>	<b>1,400</b>
MINIMUM ENTITLEMENT FORECAST	22,000	2,000	Pre-season	Pre-season	Pre-season
MAXIMUM ENTITLEMENT FORECAST	89,000	4,000	Pre-season	Pre-season	Pre-season

The next Nass River general stock assessment update from the Nisga'a Fisheries and Wildlife Department is planned for: **Monday, 16 July 2018.**

Nass stock assessment updates are available at the following links (no passwords are required):

Weekly updates are posted after each Monday's update to DFO and NLG's websites:

- DFO: <http://www.pac.dfo-mpo.gc.ca/fm-gp/northcoast-cotenord/nass-eng.html>
- NLG: <http://www.nisgaanation.ca/stock-assessments>

Daily and weekly run size information are also posted on Mondays, Wednesdays, and Fridays to the following site:

- <ftp://ftp.lgl.com/Nass%20Stock%20Assessment%20Updates/>



Photo 1. Sockeye Salmon caught and tagged at Gitwinksihlkw fishwheels on 9 July 2018.



Photo 2. Chinook Salmon caught and tagged at Gitwinksihlkw fishwheels on 9 July 2018.



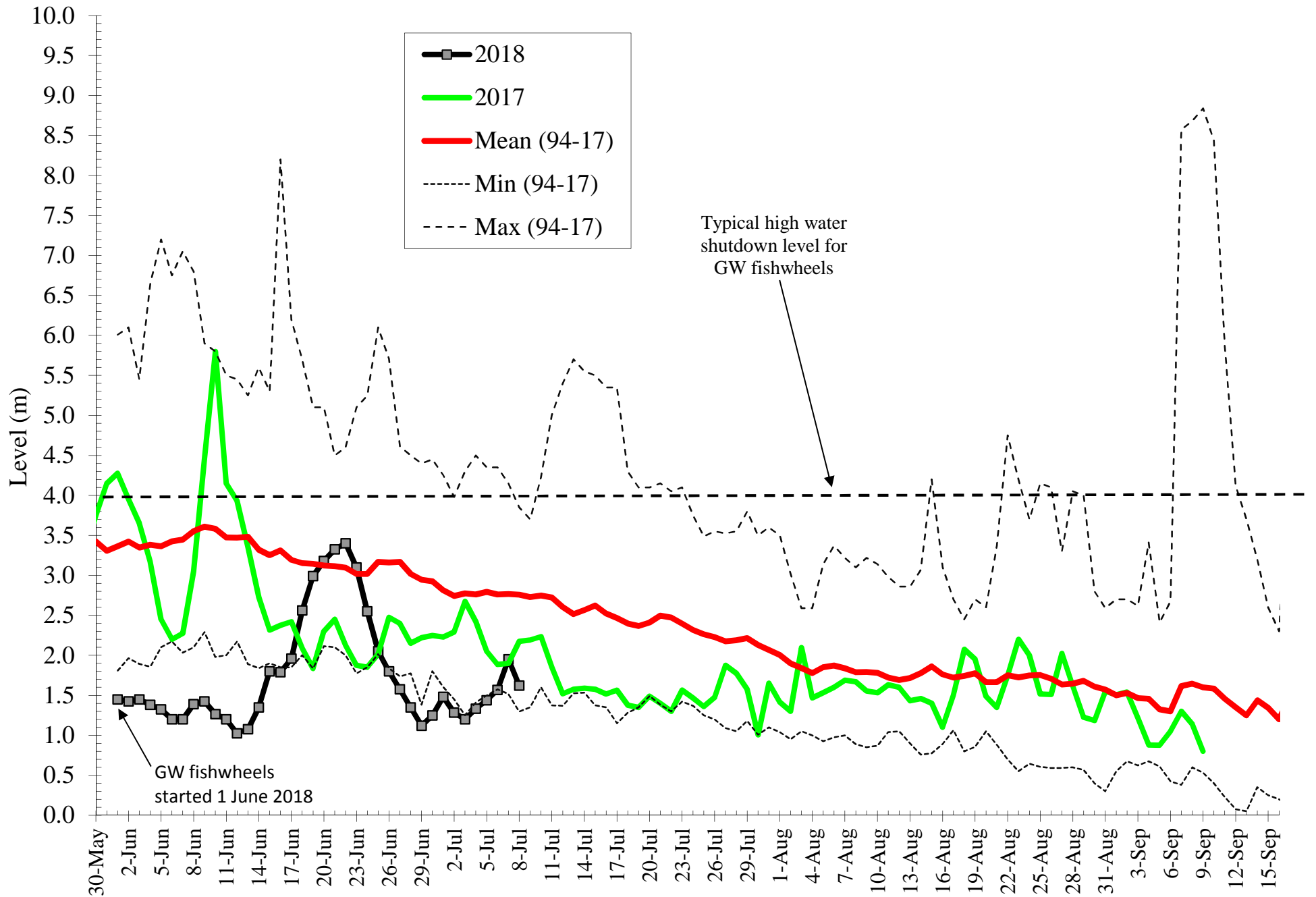
Photo 3. Pink Salmon caught and adipose fin marked at Gitwinksihlkw fishwheels on 6 July 2018.



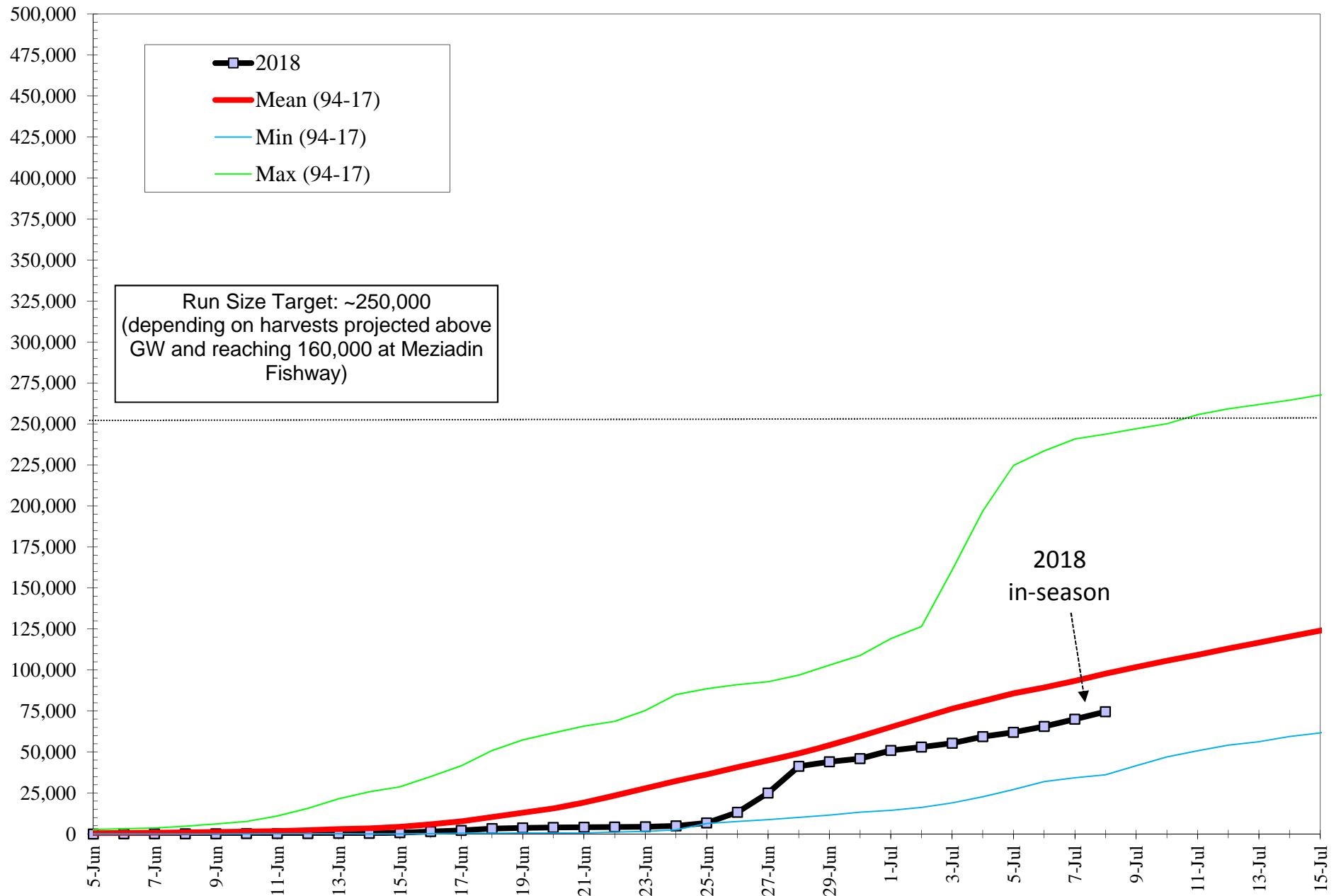
Photo 4. Gitwinksihlkw fishwheel#2, 8 July 2018.

*Photos courtesy of NFWD's senior crew leader, Ben Guno Jr.*

# Daily Water Level at Gitwinksihlkw Fishwheels 2018

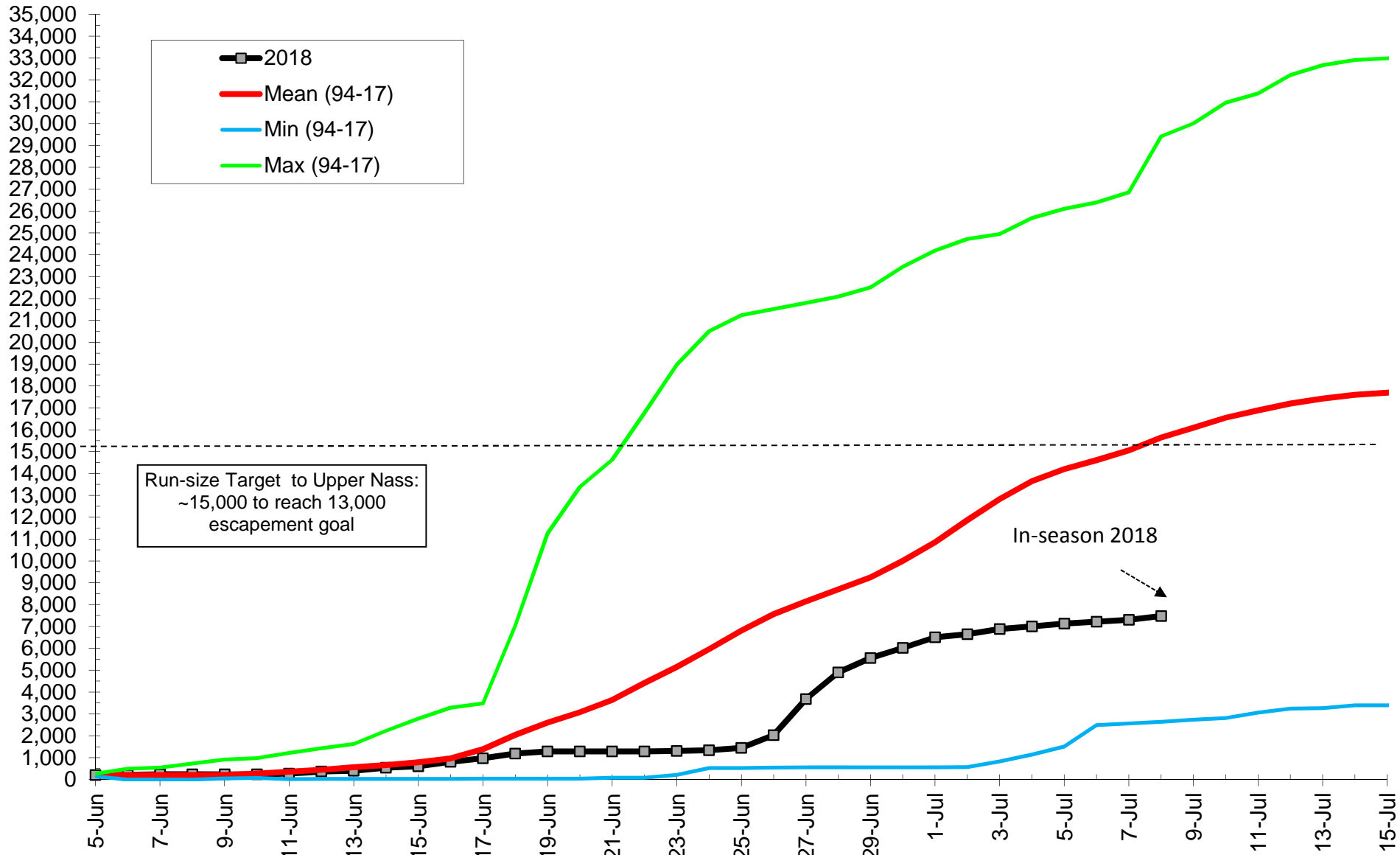


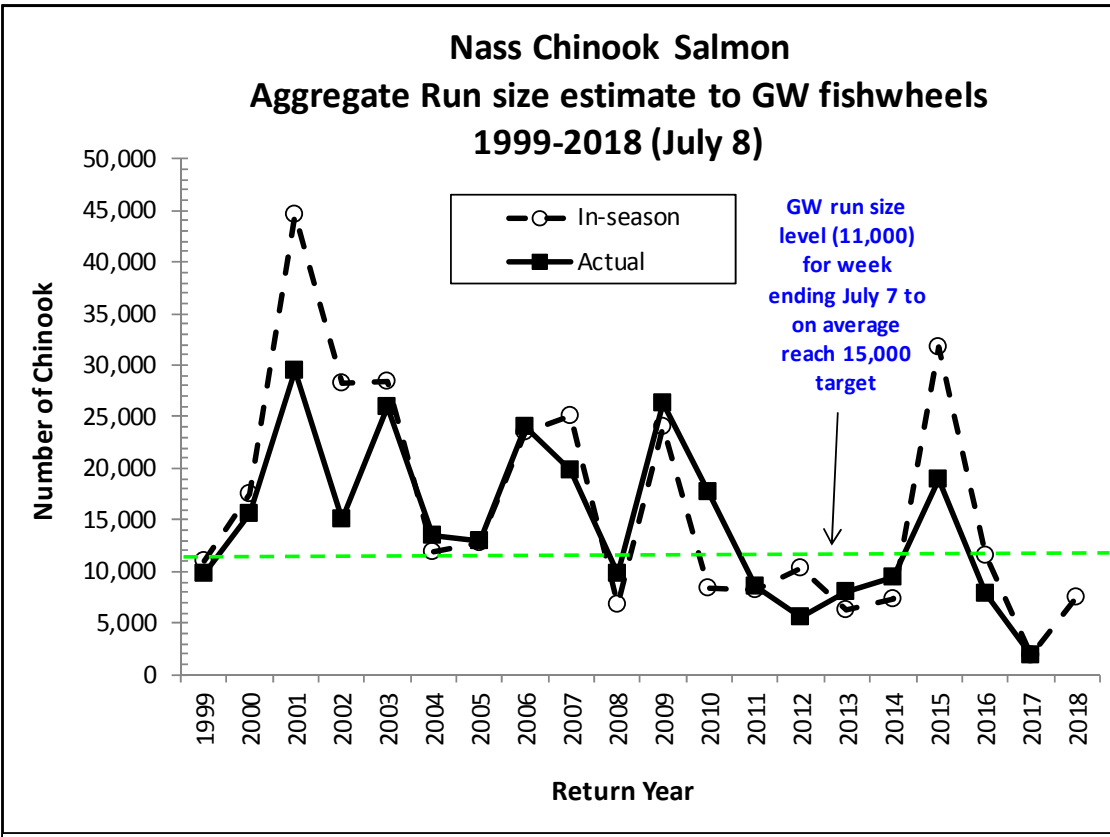
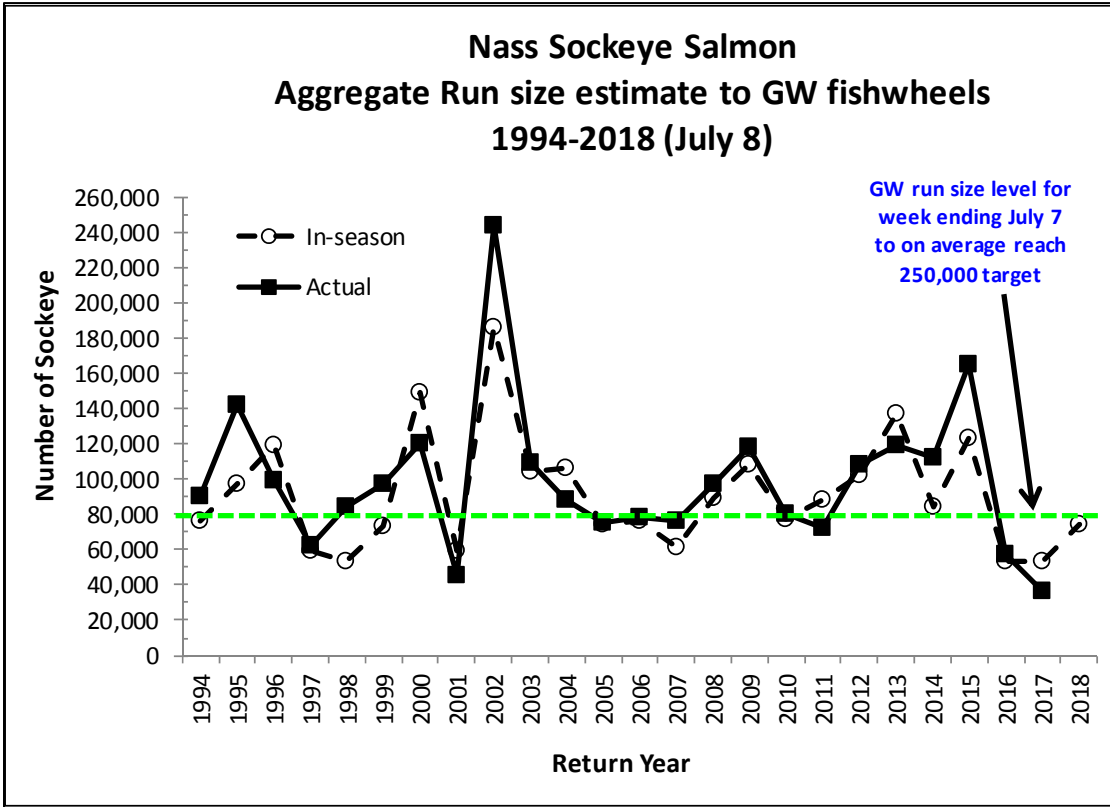
## Nass Sockeye Cum. Run Size to Gitwinksilhkw Fishwheels 2018 versus 94-17 Mean, Min, Max returns (before upriver harvests)



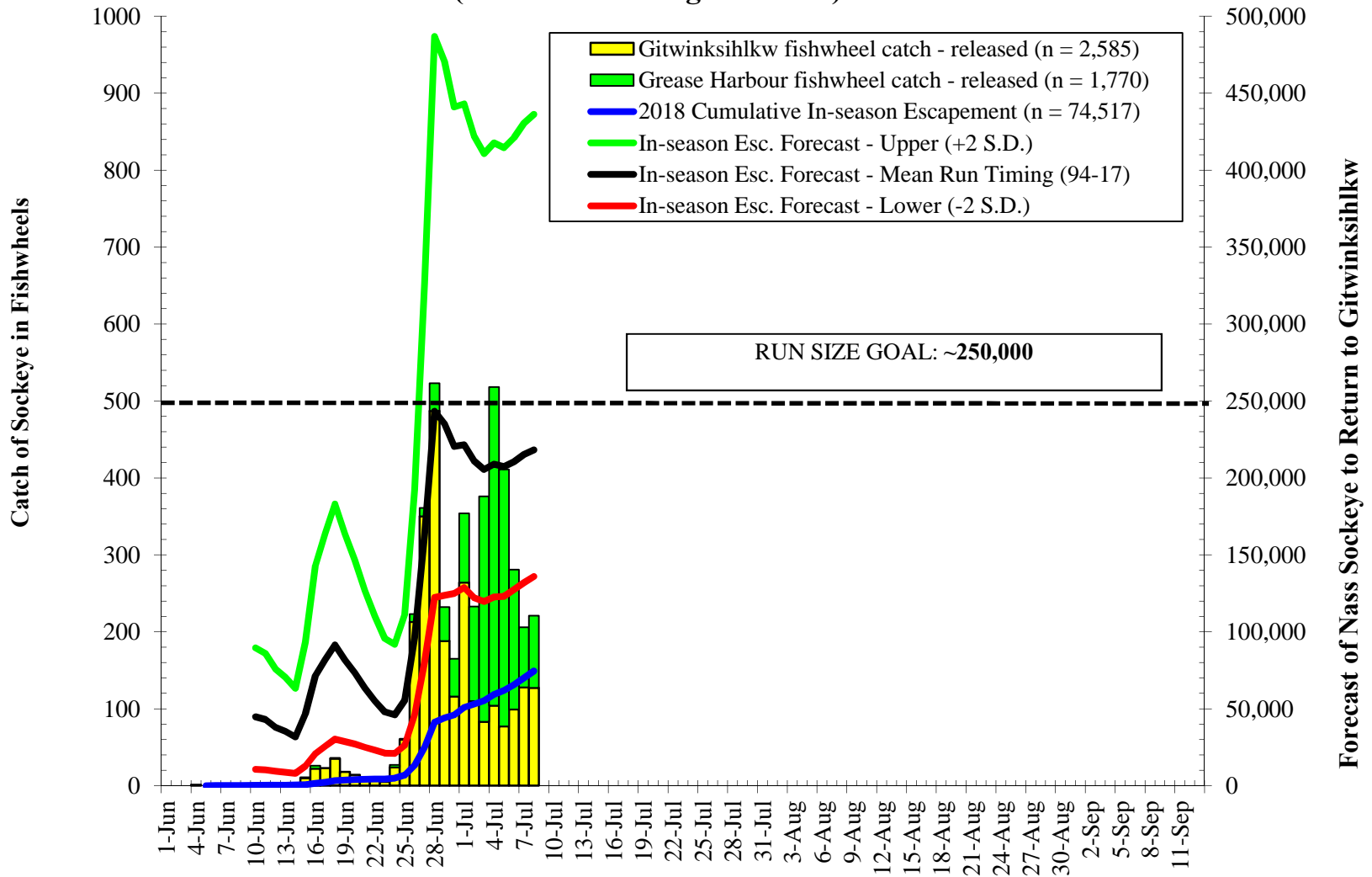


## Cumulative Nass Adult Chinook Run Size to Gitwinksihlkw 2018 vs 94-17 Mean, Minimum and Maximum returns (before up river harvests)

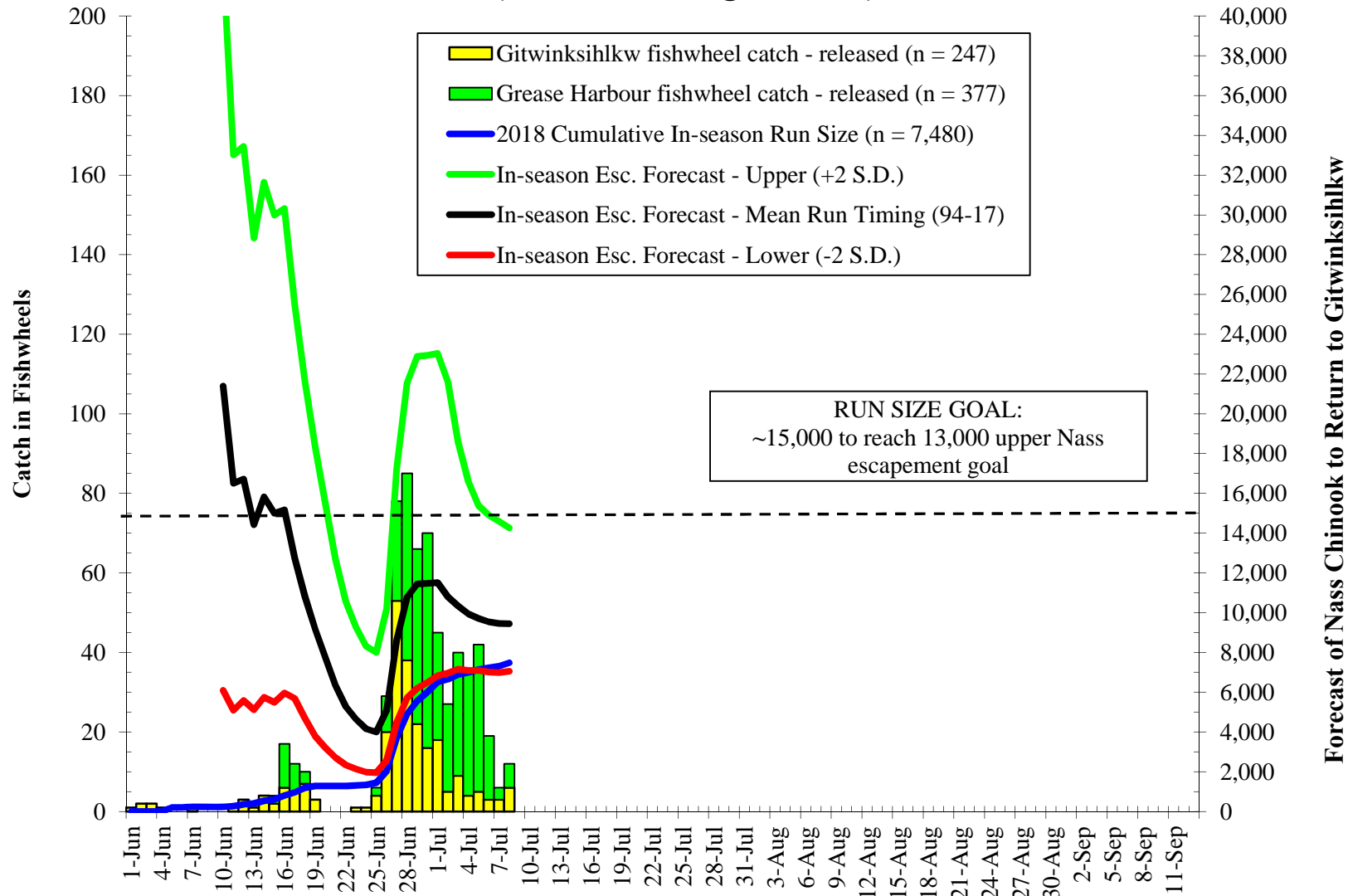




### Nass Sockeye ( $\geq 45$ cm NFL) Run Forecasts to Gitwinksihlkw Fishwheels 2018 (Mean Run timing - 1994-17)



### Nass Chinook ( $\geq 50$ cm NFL) Forecasts to Gitwinksihlkw Fishwheels 2018 (Mean Run timing - 1994-17)



Cumulative Daily Run Sizes of Adult Nass River Sockeye Salmon (≥ 45 cm NFL) to Gitwinksihkw Fishwheels, 2000-2018.

Note: In-season cum. values with yellow shading are preliminary and will change as these fish pass the upper fishwheels to finalize mark-recapture data over a 5-d period.

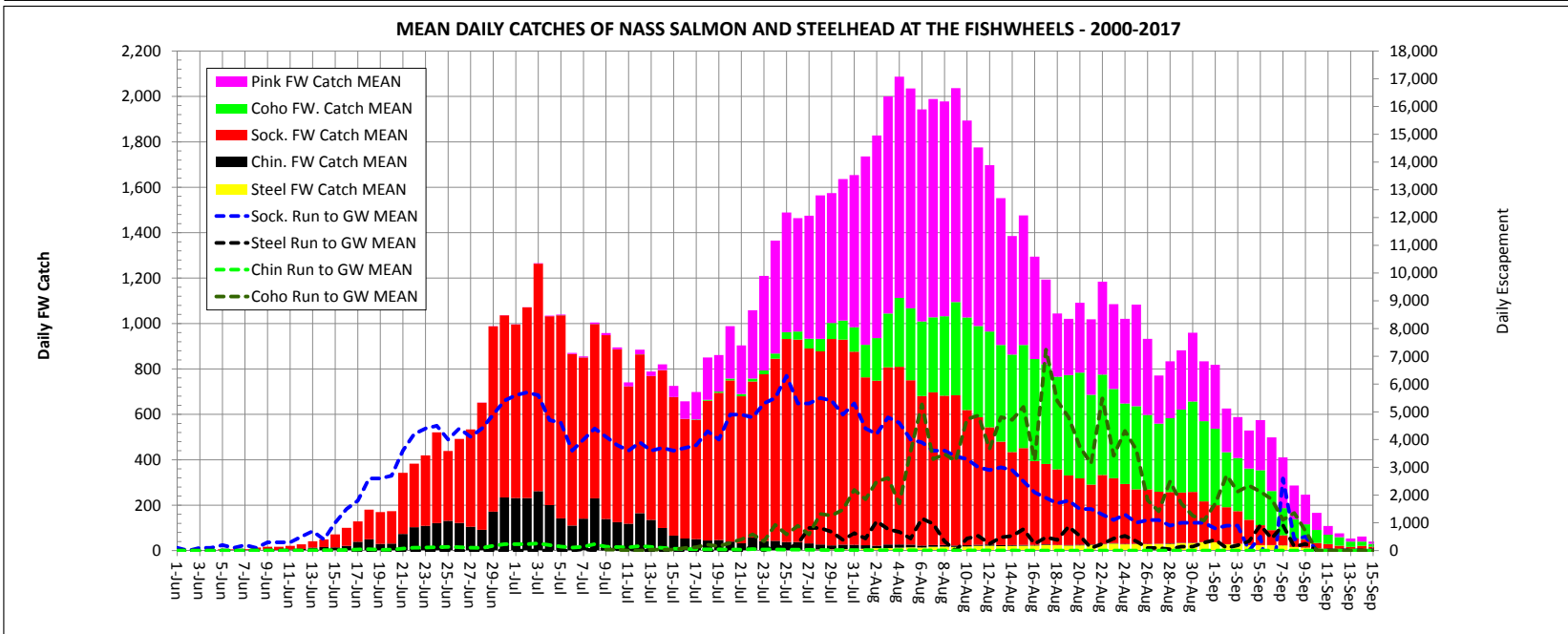
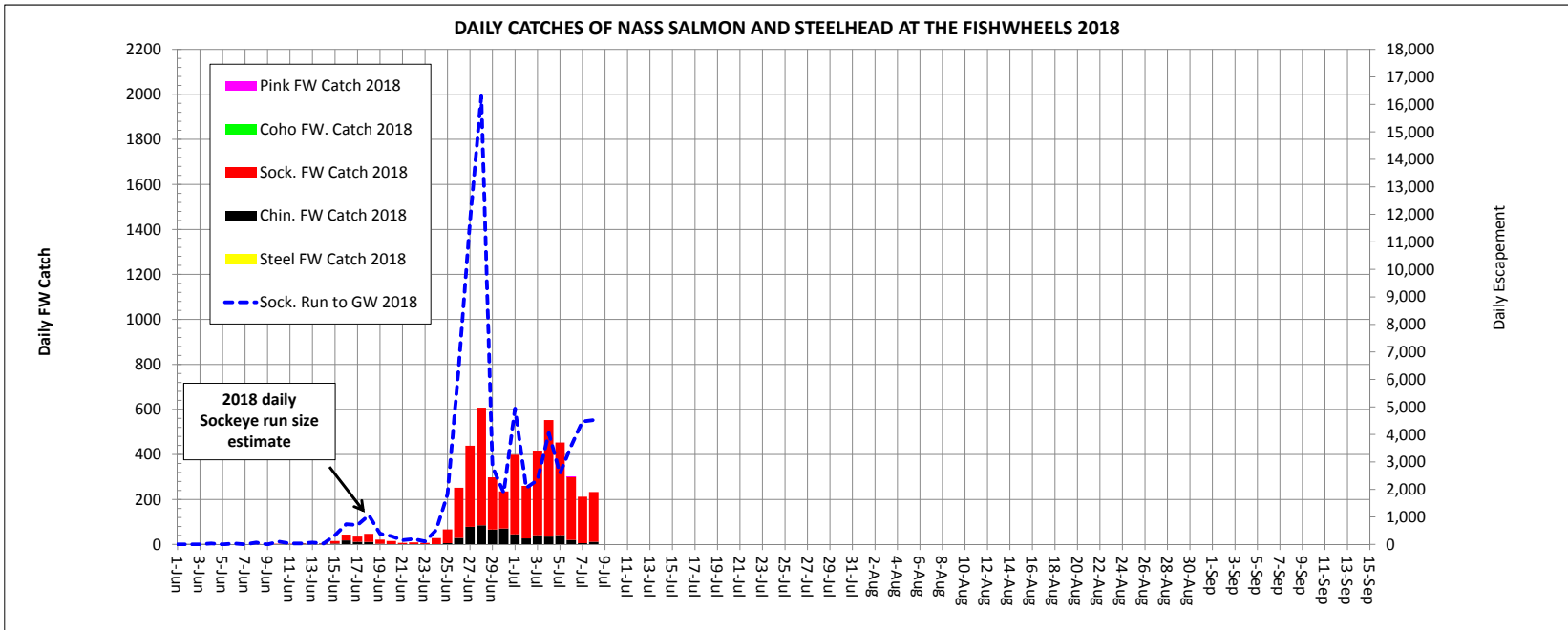
Date	Cumulative run size																		IN-SEASON (FW-MR)			
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 Cum	Mean (94-17)	2018 Daily	
1-Jun													216				0	0	0	100	0	
2-Jun										175	119	0	809	0	0		0	0	0	100	0	
3-Jun										175	119	0	1,173	93	275		0	0	0	200	0	
4-Jun										175	158	0	1,609	278	687	0	128	14	34	300	34	
5-Jun										175	238	0	2,646	432	824	283	193	58	34	500	0	
6-Jun						40				207	175	360	25	3,245	494	1,510	534	324	101	67	600	34
7-Jun						121				326	175	401	75	3,682	572	2,060	1,069	455	173	67	800	0
8-Jun		864				229	47			533	175	441	275	4,754	788	3,444	1,699	618	216	134	900	67
9-Jun		1,326				229	209			741	175	645	524	6,136	1,070	5,060	1,983	749	245	134	1,200	0
10-Jun		1,505				229	419			1,127	175	645	699	7,027	1,523	7,644	2,141	1,010	245	235	1,500	101
11-Jun		1,521			174	364	419			1,542	175	849	1,024	7,398	2,071	10,921	2,487	1,239	245	268	1,800	34
12-Jun	111	1,814			1,059	836	419			1,928	175	1,134	1,322	7,413	3,136	15,583	3,811	1,827	245	302	2,300	34
13-Jun	111	2,577			1,783	1,196	419			2,314	175	1,294	1,620	7,413	4,137	21,491	5,102	2,317	245	369	3,000	67
14-Jun	111	2,756		1,511	2,375	1,723	419	0		2,551	175	1,414	2,366	8,430	5,436	25,737	7,208	2,839	282	402	3,400	34
15-Jun	111	3,032		5,204	3,328	2,250	419	0		2,758	175	1,733	3,484	10,465	7,174	28,694	9,911	3,002	505	738	4,400	335
16-Jun	553	3,877		10,343	4,973	3,776	419	154		3,466	1,773	2,092	5,671	12,009	8,441	34,958	14,815	3,263	703	1,476	5,900	738
17-Jun	2,517	4,832		15,268	8,689	6,161	419	488		4,587	4,447	2,691	6,690	12,082	9,108	41,540	20,661	3,492	826	2,175	7,700	700
18-Jun	4,342	6,216		20,996	17,734	9,656	419	561		6,210	8,336	4,327	9,126	12,446	10,816	50,857	26,413	3,851	1,378	3,240	10,300	1,065
19-Jun	7,799	6,687		27,393	23,851	11,760	605	561		9,868	13,233	6,282	10,577	13,478	12,777	57,344	34,868	4,373	2,018	3,632	12,900	392
20-Jun	11,781	7,033		39,866	24,670	13,426	2,630	561		13,792	17,748	9,109	12,107	13,711	13,684	61,573	40,714	5,287	2,431	3,937	15,600	305
21-Jun	17,506	7,075	29,917	49,020	24,670	15,863	4,702	659		19,605	23,523	12,059	13,836	14,572	15,845	65,738	46,705	6,691	2,883	4,089	19,200	152
22-Jun	24,476	7,075	53,842	52,179	24,670	21,386	7,844	1,077		23,216	31,305	16,811	16,598	17,368	18,620	68,743	56,095	9,042	3,422	4,285	23,400	196
23-Jun	32,662	7,075	75,318	55,636	24,670	26,505	12,966	1,616		24,852	40,581	23,210	19,996	17,866	24,605	70,093	65,771	11,883	4,463	4,394	27,800	109
24-Jun	42,231	7,741	84,932	63,106	24,670	31,011	17,086	2,573		30,400	53,871	28,552	24,229	17,866	32,181	73,868	75,066	14,169	5,303	4,916	32,300	522
25-Jun	55,229	10,934	88,616	70,810	24,670	33,641	20,461	7,209		36,366	65,154	33,615	26,911	17,866	34,456	75,537	82,174	17,303	6,401	6,741	36,300	1,825
26-Jun	72,182	16,443	91,072	76,530	26,511	35,773	23,347	10,058		40,975	72,579	39,888	30,271	17,866	44,050	78,019	88,498	20,960	7,698	13,221	40,700	6,479
27-Jun	79,898	22,058	91,072	80,990	29,568	38,720	25,582	15,416		45,804	79,358	45,962	35,037	17,888	51,420	87,281	92,872	25,459	8,782	24,958	44,800	11,738
28-Jun	79,898	25,084	91,072	84,831	35,665	42,868	27,728	22,065		50,633	86,952	51,354	39,940	18,832	77,165	91,753	96,785	29,051	10,051	41,251	49,200	16,292
29-Jun	79,898	26,779	98,717	86,966	41,467	48,063	32,777	29,196		54,242	91,203	55,440	43,995	31,382	91,289	94,676	102,875	34,029	11,449	44,078	54,100	2,827
30-Jun	79,898	30,487	102,127	89,501	48,006	54,382	38,689	36,770		58,643	94,237	58,336	48,384	42,726	96,013	97,207	108,877	38,181	13,232	45,959	59,500	1,881
1-Jul	85,966	33,888	108,610	92,734	51,160	58,517	42,023	43,172		67,993	97,871	61,322	52,772	55,482	100,305	98,557	119,099	41,031	14,430	50,988	65,100	4,939
2-Jul	103,938	35,981	126,584	93,814	56,227	61,515	45,858	45,336		76,305	102,054	62,848	55,662	75,066	104,651	101,507	126,156	42,798	16,189	52,957	70,800	2,059
3-Jul	112,961	37,197	160,994	96,537	62,259	63,453	51,443	48,452		76,305	105,208	63,774	58,654	88,722	108,543	103,801	132,554	44,816	18,975	55,297	76,400	2,340
4-Jul	115,310	38,313	196,911	99,056	65,054	64,892	58,362	53,305		76,305	107,865	64,777	60,738	95,873	111,235	104,522	139,039	47,276	22,723	59,349	81,100	4,052
5-Jul	117,760	39,513	224,762	101,438	69,166	67,550	64,793	59,239		76,305	110,495	66,514	62,650	98,807	112,684	106,109	145,982	49,066	27,040	61,935	85,700	2,586
6-Jul	117,760	40,914	233,579	103,953	74,438	69,271	68,722	62,785		76,305	112,850	68,813	65,152	103,551	113,873	108,589	153,038	52,046	31,961	65,526	89,300	3,591
7-Jul	117,958	42,161	240,891	106,318	79,176	72,042	71,557	64,873		86,686	115,714	73,241	69,761	105,938	116,880	110,309	159,675	55,012	34,307	69,996	93,300	4,471
8-Jul	120,535	45,210	243,807	109,093	88,294	75,611	75,379	71,881		96,917	117,862	80,018	72,385	107,844	119,621	112,591	165,412	57,096	36,132	74,517	97,700	4,521
9-Jul	126,179	46,974	247,158	111,492	94,159	77,789	78,285	76,646		105,678	122,393	83,125	73,734	109,302	122,422	114,737	171,704	59,973	41,552		101,800	
10-Jul	132,168	49,577	250,162	113,304	100,632	81,564	81,203	81,381		112,694	125,670	87,773	74,808	110,104	125,989	116,806	178,531	63,656	47,060		105,600	
11-Jul	135,632	50,732	255,678	115,573	104,618	85,967	85,121	85,702		117,038	129,196	93,589	76,521	110,617	128,878	118,206	184,230	66,808	54,638		109,200	
12-Jul	140,067	54,206	259,269	117,890	108,888	90,486	89,920	86,278		119,205	131,682	98,109	79,745	111,188	131,649	120,808	194,202	70,047	61,027		113,100	
13-Jul	142,248	56,301	261,891	119,333	115,590	95,442	94,695	86,278		122,817	134,647	101,199	85,035	113,917	132,769	123,616	200,631	72,877	66,447		116,700	
14-Jul	145,873	59,389	264,572	122,672	121,616	100,230	98,327	86,278		126,974	137,077	103,602	95,295	117,312	134,614	127,659	207,687	75,658	70,941		120,400	
15-Jul	147,184	61,634	267,697	124,472	128,259	102,695	100,895	86,278		131,854	139,073	106,100	104,110	120,872	137,242	132,123	212,945	81,378	75,436		124,000	
16-Jul	149,032	66,920	270,225	127,797	130,229	104,339	104,774	86,278		137,633	141,826	106,863	112,758	124,421	141,659	136,082	218,285	86,476	80,836		127,700	
17-Jul	150,546	72,272	276,077	130,616	133,526	108,093	108,037	86,278		142,705	144,324	107,740	112,770	126,835	147,866	141,276	221,173	90,853	85,383		131,500	
18-Jul	151,917	79,555	281,561	134,275	137,506	115,877	111,915	86,278		145,257	146,419	110,337	124,416	131,634	155,582	146,751	226,540	96,399	89,456		135,800	
19-Jul	153,443	83,510	286,433	136,231	141,050	123,640	114,997	90,356		147,135	147,982	113,473	133,203	137,302	162,850	150,907	229,559	100,385	94,098		139,800	
20-Jul	154,540	87,412	291,060	142,802	146,018	133,291	119,238	93,290		150,432	150,540	118,716	142,564	145,152	170,566	157,059	232,455	106,275	99,309		144,700	
21-Jul	155,565	87,412	298,146	146,769	149,068	138,063	124,476	96,029		154,763	154,254	124,889	150,394	152,975	179,125	161,865	234,426	114,234	104,472		149,600	
22-Jul	157,711	87,412	303,763	155,140	153,585	141,224	130,022	98,444		160,692	159,775	129,446	157,389	156,631	185,644	168,786	239,499	119,947	109,493		154,400	
23-Jul	160,552	87,412	312,922	162,777	157,073	145,381	135,369	104,582		166,548	165,073	134,395	164,784	163,011	192,810	174,522	247,385	123,543	112,967		159,700	
24-Jul	164,377	90,640	327,029	169,680	162,273	149,641	140,499	109,959														

**Cumulative Daily Run Sizes of Adult Nass River Chinook Salmon (≥ 50 cm NFL) to Gitwinksihlkw Fishwheels, 2000-2018.** **IN-SEASON**

Note: In-season cum. values with yellow shading are preliminary and will change as mark-recapture data finalize over a 5-d period as fish pass the upper fishwheels.

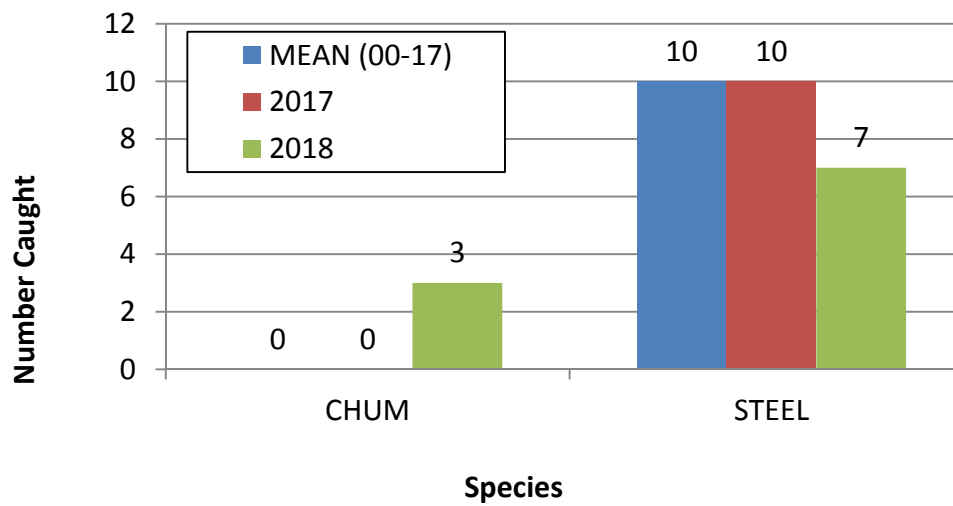
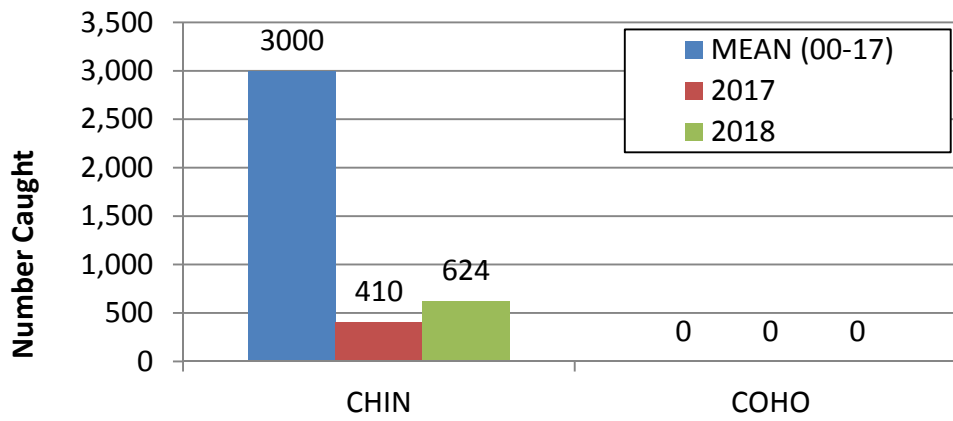
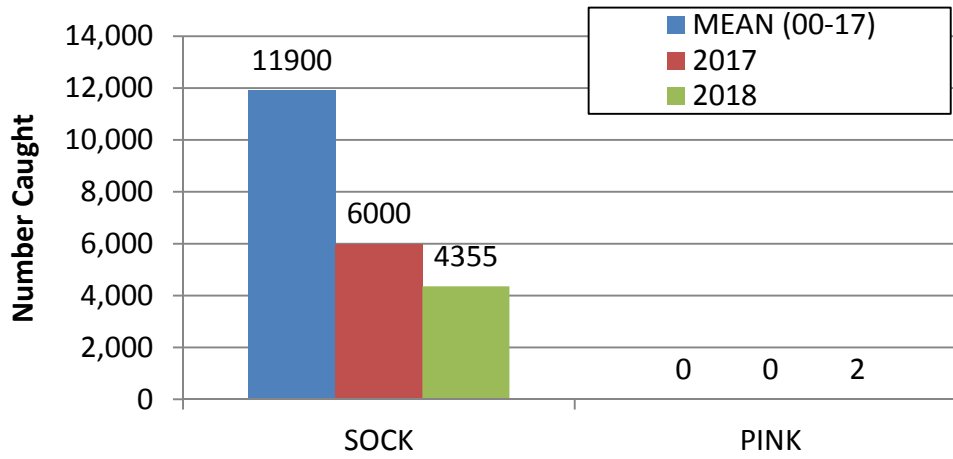
Date	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 Cum	Mean (94-17)	2018 Daily
5-Jun-18																			201	205	201
6-Jun-18						14			23		488		24	0	0	0	0	0	201	205	0
7-Jun-18		23				72			69		548		24	17	97	0	46	0	235	205	34
8-Jun-18		168				72	47		115		731		24	50	97	0	68	25	235	205	0
9-Jun-18		306				72	141		138		914		47	67	161	59	91	50	235	205	0
10-Jun-18		345				72	157		208		975		71	67	290	88	114	151	235	269	0
11-Jun-18		352			16	101	157		600		1,219	21	71	84	483	133	228	201	268	355	34
12-Jun-18	32	559			49	173	157		669		1,280	106	95	134	772	177	319	226	369	439	101
13-Jun-18	32	1,248			98	404	157		669		1,524	212	102	167	901	177	410	251	402	567	34
14-Jun-18	32	1,409			147	505	157		715		1,645	212	126	301	1,030	177	547	251	537	660	134
15-Jun-18	32	1,471			279	245	157		738		1,828	212	134	318	1,287	251	707	251	604	787	67
16-Jun-18	161	1,731		1,164	636	664	157	25	853	159	2,499	276	142	318	1,706	487	912	251	805	961	201
17-Jun-18	850	2,252		2,513	1,908	1,141	157	37	1,222	319	2,742	467	142	351	2,092	811	1,322	301	967	1,386	162
18-Jun-18	1,410	2,903		5,042	3,946	2,065	157	37	1,315	546	3,352	616	142	485	2,478	1,976	1,527	352	1,190	2,045	222
19-Jun-18	2,013	3,209		6,035	4,386	2,628	173	37	1,730	865	4,083	722	300	619	2,768	2,403	1,573	553	1,280	2,602	91
20-Jun-18	2,928	3,278		7,059	4,418	2,859	361	37	2,168	1,275	5,058	892	457	686	2,929	2,624	1,687	653	1,280	3,074	0
21-Jun-18	4,188	3,278	866	11,838	4,418	3,148	896	86	2,629	2,345	6,643	977	457	686	3,315	3,170	1,801	754	1,280	3,637	0
22-Jun-18	5,480	3,278	2,553	16,771	4,418	3,725	1,760	86	2,883	4,484	8,471	1,253	489	719	3,701	3,361	2,006	904	1,280	4,418	0
23-Jun-18	7,450	3,278	4,421	18,974	4,418	4,592	3,284	210	2,883	6,738	9,933	1,401	505	803	3,991	3,730	2,165	1,181	1,309	5,146	28
24-Jun-18	9,452	3,286	5,816	20,510	4,418	6,122	5,357	1,479	3,114	11,109	11,335	1,593	520	837	4,280	4,172	2,553	1,281	1,336	5,959	27
25-Jun-18	11,659	3,692	6,144	21,240	4,418	7,826	9,662	1,886	3,483	15,388	12,615	1,869	528	937	4,474	5,086	2,826	1,306	1,449	6,809	113
26-Jun-18	12,746	6,380	6,354	21,519	4,418	9,270	12,553	2,613	4,475	15,912	13,834	2,187	544	1,054	4,860	6,767	3,100	1,331	2,034	7,562	585
27-Jun-18	12,972	9,827	6,354	21,798	4,484	9,949	12,508	3,919	5,766	16,686	14,982	2,718	552	1,104	4,924	7,976	3,373	1,482	3,683	8,145	1,649
28-Jun-18	12,972	10,546	6,354	22,093	4,516	10,454	13,134	5,201	6,873	20,100	15,845	3,164	552	1,221	5,600	9,259	3,738	1,784	4,899	8,697	1,216
29-Jun-18	12,972	10,738	8,168	22,512	4,908	11,003	13,590	5,571	7,289	22,172	16,454	3,461	552	1,238	5,697	10,615	4,331	1,859	5,556	9,250	657
30-Jun-18	12,972	11,067	9,864	22,776	5,658	11,249	16,292	6,076	7,496	23,447	16,637	3,843	552	1,389	5,761	11,676	4,923	2,035	6,018	10,006	462
1-Jul-18	13,134	13,495	10,821	22,900	6,130	11,494	19,340	6,187	8,027	24,198	16,759	4,311	552	1,506	6,276	12,148	5,334	2,085	6,511	10,855	493
2-Jul-18	13,747	19,538	11,933	22,915	7,370	11,711	21,414	6,434	8,811	24,721	16,820	4,757	568	3,079	6,855	12,826	5,676	2,135	6,646	11,864	135
3-Jul-18	14,727	24,501	12,544	23,117	9,163	12,028	22,419	7,679	8,811	24,949	17,003	5,181	828	5,287	7,531	14,168	6,542	2,236	6,888	12,833	243
4-Jul-18	15,244	25,688	13,291	23,427	10,761	12,360	23,001	11,968	8,811	25,382	17,124	5,861	1,135	6,592	8,143	14,890	7,020	2,286	6,998	13,646	110
5-Jul-18	15,405	26,110	13,829	23,877	12,408	12,635	23,535	13,287	8,811	25,837	17,124	6,901	1,506	7,061	8,625	15,849	7,431	2,437	7,137	14,199	139
6-Jul-18	15,405	26,393	14,385	24,637	13,337	12,649	23,786	13,521	8,811	26,087	17,246	7,475	2,578	7,479	9,108	16,999	7,750	2,487	7,222	14,614	84
7-Jul-18	15,416	26,860	14,786	25,211	13,386	12,707	24,053	15,924	8,857	26,224	17,307	8,324	4,233	7,646	9,526	17,765	7,864	2,562	7,307	15,049	85
8-Jul-18	15,545	29,418	15,051	25,956	13,467	13,010	24,116	19,807	9,872	26,338	17,734	8,515	5,574	8,115	9,526	18,620	7,909	2,638	7,480	15,650	173
9-Jul-18	15,911	30,008	15,124	26,189	13,630	13,487	24,242	21,878	12,224	26,543	17,917	8,685	6,062	8,684	9,687	19,078	8,046	2,738		16,084	
10-Jul-18	16,406	30,958	15,224	26,406	13,859	14,079	24,367	23,110	15,799	26,747	18,039	8,812	6,819	8,935	10,234	19,387	8,183	2,814		16,554	
11-Jul-18	16,826	31,379	15,279	26,530	14,169	14,526	24,587	23,172	18,152	26,952	18,160	9,046	7,434	9,219	10,428	19,579	8,570	3,065		16,890	
12-Jul-18	18,161	32,221	15,306	26,654	14,690	14,728	25,137	23,172	19,190	26,998	18,282	9,195	7,671	9,286	10,653	19,741	8,753	3,241		17,203	
13-Jul-18	18,753	32,681	15,370	26,732	15,342	14,858	26,064	23,172	19,351	27,066	18,404	9,301	7,789	9,387	10,975	19,756	8,981	3,266		17,421	
14-Jul-18	19,345	32,911	15,406	26,840	15,783	15,017	26,661	23,172	19,513	27,294	18,465	9,471	7,797	9,420	11,168	19,770	9,163	3,391		17,594	
15-Jul-18	19,582	32,987	15,443	26,996	15,946	15,104	26,834	23,172	19,836	27,521	18,587	9,556	7,797	9,504	11,297	19,829	9,231	3,391		17,699	
16-Jul-18	19,776	33,148	15,452	27,058	16,027	15,133	26,944	23,172	20,043	27,544	18,587	9,640	7,797	9,520	11,747	20,051	9,322	3,492		17,791	
17-Jul-18	19,970	33,317	15,507	27,213	16,027	15,219	27,148	23,172	20,159	27,749	18,648	9,768	7,805	9,537	11,876	20,286	9,414	3,617		17,884	
18-Jul-18	20,013	33,508	15,534	27,476	16,092	15,277	27,227	23,283	20,228	27,863	18,648	9,895	7,915	9,587	12,005	20,493	9,482	3,693		17,974	
19-Jul-18	20,077	33,608	15,543	27,709	16,174	15,364	27,352	23,369	20,274	27,954	18,770	10,023	7,994	9,604	12,069	20,581	9,505	3,843		18,051	
20-Jul-18	20,153	33,654	15,580	27,926	16,223	15,407	27,384	23,542	20,297	28,022	18,770	10,108	8,018	9,604	12,101	20,655	9,550	3,843		18,108	
21-Jul-18	20,163	33,654	15,607	28,082	16,272	15,479	27,478	23,862	20,343	28,159	18,953	10,235	8,025	9,621	12,101	20,714	9,550	3,843		18,174	
22-Jul-18	20,163	33,654	15,625	28,159	16,288	15,479	27,525	24,257	20,389	28,318	19,014	10,362	8,120	9,704	12,165	20,788	9,550	3,944		18,238	
23-Jul-18	20,239	33,654	15,671	28,268	16,304	15,595	27,525	24,700	20,412	28,432	19,014	10,426	8,286	9,738	12,230	20,802	9,573	4,070		18,307	
24-Jul-18	20,325	33,700	15,680	28,361	16,386	15,624	27,541	25,082	20,412	28,477	19,014	10,490	8,609	9,755	12,262	20,817	9,573	4,120		18,369	
25-Jul-18	20,368	33,769	15,707	28,438	16,516	15,653	27,541	25,551	20,459	28,500	19,014	10,554	9,082	9,771	12,294	20,832	9,596	4,170		18,440	
26-Jul-18	20,411	33,853	15,707	28,531	16,533	15,696	27,572	25,748	20,528	28,591	19,075	10,596	9,184	9,805	12,455	20,847	9,642	4,170		18,494	
27-Jul-18	20,422	33,960	15,735	28,563	16,630	15,739	27,588	25,994	20,574	28,637	19,075	10,660	9,271	9,838	12,584	20,935	9,687	4,220		18,548	
28-Jul-18	20,433	34,021	15,744	28,609	16,647	15,739	27,604	26,192	20,620	28,705	19,136	10,702	9,531	9,855	12,616	21,009	9,710	4,245		18,595	
29-Jul-18	20,443	34,075	15,753	28,656	16,696	15,768	27,604	26,266	20,666	28,728	19,196	10,787	9,768	9,855	12,616	21,038	9,710	4,245		18,630	
30-Jul-18	20,486	34,167	15,789	28,764	16,728	15,783	27,667	26,364	20,689	28,751	19,257	10,830	9,870	9,888	12,713	21,127	9,710	4,245		18,673	

Nass Summer-run Steelhead Cumulative Daily Run Size Estimates to Gitwinksihkw Fishwheels, 2000-2018.																		IN-SEASON	Mean Cum	Daily	
Date	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	(94-17)	2018
1-Jul-18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-Jul-18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-Jul-18	0	0	0	0	0	0	0	0	0	0	0	0	24	0	0	0	0	0	0	34	34
4-Jul-18	0	0	0	0	0	0	0	0	0	0	0	116	49	0	0	0	0	0	34	10	0
5-Jul-18	0	0	0	0	0	0	0	0	0	0	0	116	49	0	0	0	0	0	34	10	0
6-Jul-18	0	0	0	0	0	0	0	0	0	0	0	116	49	0	0	0	0	0	34	10	0
7-Jul-18	0	0	0	0	0	0	0	0	0	0	0	116	73	0	32	39	48	0	34	20	0
8-Jul-18	0	0	0	0	0	0	0	67	0	0	0	116	73	0	32	39	48	0	34	20	0
9-Jul-18	0	0	0	0	0	0	0	67	0	0	0	116	73	0	32	39	144	0			30
10-Jul-18	31	0	0	0	0	0	0	100	0	0	0	116	73	0	32	39	192	0			30
11-Jul-18	31	0	0	0	0	0	0	100	0	0	0	116	73	0	32	39	241	0			30
12-Jul-18	31	0	0	0	0	0	0	100	0	0	0	116	73	0	64	39	241	0			40
13-Jul-18	31	0	0	0	0	0	0	100	0	0	0	116	73	0	95	77	241	0			50
14-Jul-18	31	28	0	0	0	41	0	100	0	0	0	116	73	0	159	116	241	0			100
15-Jul-18	31	28	0	0	0	41	0	100	0	0	0	116	73	0	191	116	241	0			100
16-Jul-18	62	28	0	0	0	41	30	100	0	0	77	174	73	0	191	155	241	0			100
17-Jul-18	155	57	52	0	0	41	30	100	0	0	77	174	73	0	191	232	241	0			100
18-Jul-18	155	57	52	0	0	83	30	133	82	0	77	290	73	0	223	348	241	0			100
19-Jul-18	155	57	52	0	18	83	30	133	123	0	153	407	73	0	223	348	241	0			100
20-Jul-18	155	57	52	0	36	83	30	133	123	0	153	465	73	0	223	387	241	29			100
21-Jul-18	155	57	52	0	54	83	59	133	123	0	307	465	73	0	254	387	241	58			100
22-Jul-18	155	57	52	59	54	166	59	133	164	0	460	465	97	53	350	387	385	58			200
23-Jul-18	186	57	104	59	54	249	59	133	246	51	537	639	97	105	572	387	385	58			200
24-Jul-18	310	57	156	178	72	249	59	133	328	103	690	755	146	158	700	425	577	58			300
25-Jul-18	310	85	208	415	72	290	89	133	492	103	690	871	170	264	891	425	625	115			300
26-Jul-18	372	113	208	771	90	290	89	133	615	205	844	871	218	264	1,050	542	866	202			400
27-Jul-18	372	170	259	831	180	332	89	133	738	308	1,074	1,103	243	316	1,209	580	1,684	259			500
28-Jul-18	434	198	363	1,068	198	332	89	133	902	461	1,304	1,278	267	422	1,336	735	2,501	288			600
29-Jul-18	465	283	571	1,365	270	332	148	133	984	667	1,381	1,394	267	686	1,431	774	3,175	288			700
30-Jul-18	527	311	934	1,661	288	332	177	133	1,229	718	1,457	1,394	364	791	1,463	928	3,560	346			800
31-Jul-18	682	396	1,297	1,958	324	373	236	200	1,434	718	1,688	1,452	412	844	1,590	1,006	4,185	375			1,000
1-Aug-18	744	453	1,608	2,136	451	580	236	233	1,557	718	1,918	1,510	558	844	1,813	1,044	4,618	461			1,100
2-Aug-18	837	934	2,024	2,789	559	663	266	233	1,762	718	2,148	1,568	728	844	2,258	1,044	5,676	663			1,300
3-Aug-18	1,209	1,076	2,127	2,907	649	705	295	267	1,967	923	2,455	1,742	946	844	2,926	1,160	6,446	836			1,500
4-Aug-18	1,829	1,218	2,335	3,085	793	705	325	366	2,008	1,333	2,455	1,858	1,116	844	3,180	1,508	7,119	980			1,600
5-Aug-18	2,449	1,218	2,750	3,441	901	746	384	433	2,377	1,743	2,761	1,975	1,189	844	3,530	1,741	7,552	1,153			1,800
6-Aug-18	2,759	1,246	2,854	3,619	991	871	561	566	2,500	1,897	2,838	2,033	1,358	896	4,007	1,934	8,707	1,210			2,000
7-Aug-18	3,162	1,359	2,906	3,916	1,009	912	708	633	2,746	2,718	2,992	2,149	1,552	896	4,262	2,205	9,669	1,297			2,200
8-Aug-18	3,409	1,586	3,165	4,272	1,118	1,078	797	666	2,869	3,230	2,992	2,555	1,892	1,002	4,580	2,553	10,005	1,441			2,400
9-Aug-18	4,122	2,124	3,321	4,865	1,172	1,161	826	733	2,951	4,102	3,375	2,788	2,062	1,213	4,771	2,785	10,005	1,470			2,600
10-Aug-18	4,649	2,322	3,321	5,459	1,460	1,244	944	833	3,033	4,564	3,835	3,020	2,329	1,424	5,184	2,978	10,438	1,671			2,900
11-Aug-18	5,331	2,633	3,373	6,052	1,658	1,285	1,003	900	3,197	4,717	4,449	3,543	2,692	1,529	5,248	3,172	10,967	1,729			3,100
12-Aug-18	5,703	3,086	3,580	6,527	1,766	1,368	1,092	1,099	3,279	4,717	4,679	3,833	3,274	1,635	5,343	3,288	11,208	1,873			3,300
13-Aug-18	6,013	3,370	3,840	6,942	1,911	1,493	1,210	1,233	3,361	5,743	4,909	4,065	3,541	1,740	5,502	3,288	11,689	2,305			3,600
14-Aug-18	6,385	3,483	3,943	7,476	2,235	1,617	1,269	1,333	3,361	6,717	5,830	4,356	4,026	1,740	5,725	3,558	12,218	2,363			3,800
15-Aug-18	6,664	3,766	3,943	7,773	2,451	1,617	1,328	1,533	3,443	7,538	6,213	4,530	4,730	1,740	6,011	3,674	12,988	2,536			4,000
16-Aug-18	7,005	3,964	4,358	8,010	2,487	1,658	1,417	1,832	3,565	7,948	6,827	4,588	5,239	1,793	6,234	4,023	13,228	3,026			4,300
17-Aug-18	7,160	4,332	5,137	8,485	2,632	1,658	1,564	2,066	3,729	8,614	7,210	4,588	5,724	1,846	6,520	4,680	13,709	3,141			4,600
18-Aug-18	7,377	4,446	5,759	8,603	2,758	1,949	1,682	2,199	3,852	9,743	7,441	4,588	6,137	2,109	6,870	4,990	14,094	3,141			4,800
19-Aug-18	7,563	4,785	6,071	8,722	2,830	1,990	1,918	2,265	4,262	10,255	7,594	4,704	6,670	2,109	7,379	5,222	14,960	3,141			5,100
20-Aug-18	7,873	4,984	6,330	9,256	2,920	1,990	2,095	2,299	4,959	10,563	7,747	4,820	7,010	2,215	7,665	5,299	15,489	3,170			5,300
21-Aug-18	8,090	5,380	6,797	9,909	3,028	1,990	2,361	2,465	5,287	10,666	8,131	4,820	7,398	2,215	8,460	5,802	15,585	3,314			5,600
22-Aug-18	8,121	5,663	7,108	10,383	3,244	1,990	2,479	2,532	6,065	11,383	8,438	4,820	7,689	2,478	9,128	6,769	15,826	3,602			5,900
23-Aug-18	8,121	5,805	7,264	10,680	3,371	2,405	2,656	2,732	6,721	12,409	8,514	4,820	7,980	2,847	10,209	7,272	16,259	3,689			6,200
24-Aug-18	8,121	6,314	7,264	11,451	3,425	2,861	2,892	2,865	7,500	12,768	8,975	4,937	8,271	3,269	11,386	7,658	16,788	3,919			6,600
25-Aug-18	8,245	6,682	7,316	11,985	3,479	3,234	3,040	3,032	7,500	13,434	9,282	5,111	8,538	3,375	12,117	8,045	17,124	4,323			6,800
26-Aug-18	8,276	7,079	7,731	12,282	3,641	3,358	3,128	3,165	7,500	13,793	9,588	5,227	8,683	3,480	13,167	8,896	17,221	4,582			7,100
27-Aug-18	8,338	7,079	8,042	12,757	3,803	3,773	3,158	3,232	7,705	14,101	10,355	6,156	8,950	3,691	13,708	9,824	17,317	4,813			7,400
28-Aug-18	8,369	7,079	8,094	13,172	3,875	3,939	3,305	3,332	8,360	14,563	10,509	7,318	9,120	3,902	14,185	10,134	17,365	5,187			7,700
29-Aug-18	8,834	7,277	8,146	13,291	3,893	4,188	3,482	3,432	8,975	15,127	10,892	8,247	9,654	4,166	15,043	10,173	17,509	5,389			8,000
30-Aug-18	9,516	7,673	8,509	13,669	3,947	4,519	3,482	3,565	9,795	15,998	10,892	9,234	9,896	4,429	15,393	10,250	17,654	5,879			8,400
31-Aug-18	10,290	8,325	9,287	13,647	4,037	4,644	3,600	3,831	10,287	17,178	11,123	10,512	10,211	4,482	15,743	10,443	17,942	6,138			8,700
1-Sep-18	10,755	8,806	9,599	13,765	4,056	4,892	3,777	4,031	10,901	18,870	11,429	12,138	10,406	4,588	15,902	10,482	18,327	6,282			9,100
2-Sep-18	10,972	9,118	10,169	14,240	4,128	5,141	4,131	4,331	11,147	19,895	11,813	13,009	10,721	4,640	15,966	10,714	18,423	6,455			9,400
3-Sep-18	11,778	9,401	11,207																		





### Nass Fishwheel Catches 2018 - 8 JULY



2018 Nass Fishwheel Catches

	GW		GW Total	GH				GH Total	Grand Total
Data	FW1	FW2		FW3	FW4	FW5	FW6		
<b>Chin-adult catch</b>	<b>72</b>	<b>175</b>	<b>247</b>	<b>93</b>	<b>104</b>	<b>143</b>	<b>37</b>	<b>377</b>	<b>624</b>
Chin-tagged	69	167	236	90	97	128	34	349	585
Chin-recaps	2	5	7	1	6	12	3	22	29
Chin-Jacks	17	41	58	24	31	34	22	111	169
Sum of CH Harv	0	0	0	0	0	0	0	0	0
<b>Sockeye-adult catch</b>	<b>633</b>	<b>1,952</b>	<b>2,585</b>	<b>420</b>	<b>481</b>	<b>634</b>	<b>235</b>	<b>1,770</b>	<b>4,355</b>
Sockeye-tagged	461	962	1,423	0	0	0	0	0	1,423
Sum of sk-radio	101	175	276	0	0	0	0	0	276
Sockeye-recaps	22	31	53	9	13	14	8	44	97
Sockeye_jacks	308	815	1123	32	33	46	22	133	1256
Sum of sk_harvest_total	0	0	0	0	0	0	0	0	0
<b>Coho-adult catch</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Coho-tagged	0	0	0	0	0	0	0	0	0
Coho-recaps	0	0	0	0	0	0	0	0	0
Coho-jack	0	0	0	0	0	0	0	0	0
Sum of co_harvest_total	0	0	0	0	0	0	0	0	0
<b>Steel-adult catch</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>6</b>	<b>7</b>
Steel-Adipose marked	1	0	1	0	0	0	0	0	1
Steel-unmarked	0	0	0	1	2	1	2	6	6
Steel-recap-total	0	0	0	0	0	0	0	0	0
<b>Pacific Lamprey-catch</b>	<b>16</b>	<b>44</b>	<b>60</b>	<b>15</b>	<b>95</b>	<b>95</b>	<b>54</b>	<b>259</b>	<b>319</b>
Lamprey-tagged	16	42	58	14	80	83	41	218	276
Lamprey-released	0	2	2	1	15	12	13	41	43
Lamprey-recaps	0	0	0	0	6	2	1	9	9
River Lamprey	0	0	0	0	0	2	0	2	2
<b>Pink-adult-catch</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>
<b>Chum-adult-catch</b>	<b>0</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>
Chum-tagged	0	1	1	0	0	0	0	0	1
Chum-punched	0	0	0	0	0	0	0	0	0
Chum-recaps	0	0	0	0	0	0	0	0	0
<b>Whitefish (Round)</b>	<b>3</b>	<b>3</b>	<b>6</b>	<b>4</b>	<b>5</b>	<b>15</b>	<b>21</b>	<b>45</b>	<b>51</b>
<b>Rainbow Trout</b>	<b>9</b>	<b>3</b>	<b>12</b>	<b>6</b>	<b>4</b>	<b>9</b>	<b>16</b>	<b>35</b>	<b>47</b>
<b>Peamouth Chubs</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>12</b>	<b>8</b>	<b>23</b>	<b>23</b>
<b>Pikeminnow</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>11</b>	<b>7</b>	<b>20</b>	<b>20</b>
<b>Redside Shiners</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>5</b>	<b>1</b>	<b>7</b>	<b>6</b>	<b>19</b>	<b>20</b>
<b>Sculpin</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>3</b>	<b>7</b>	<b>0</b>	<b>10</b>	<b>12</b>
<b>Dolly Varden</b>	<b>7</b>	<b>1</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>9</b>
<b>Cutthroat Trout</b>	<b>6</b>	<b>1</b>	<b>7</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>8</b>
<b>Seals</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>3</b>
<b>Suckers</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>



Steelhead (all FWs)																					
Week Ending (Sat)	Stat wk	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	00-17 Cum Mean	2018
26-May	21													0	0	0	2	1		1	
2-Jun	22	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	0
9-Jun	23	-	3	-	-	-	2	1	-	2	-	11	-	6	3	5	7	1	2	2	0
16-Jun	24	-	6	-	-	2	4	2	-	5	1	13	11	11	6	8	20	2	6	5	2
23-Jun	25	1	9	-	-	3	5	3	-	6	9	15	18	11	7	9	21	4	12	7	4
30-Jun	26	2	10	2	-	3	8	6	3	6	10	16	22	14	7	10	22	4	13	9	5
7-Jul	27	2	10	4	1	4	8	6	3	6	10	16	22	18	7	12	24	5	14	10	7
14-Jul	28	4	11	6	1	4	10	6	6	6	10	16	27	18	7	17	26	15	15	11	
21-Jul	29	10	13	10	2	8	12	10	7	10	10	23	33	19	10	25	39	17	19	15	
28-Jul	30	22	19	17	24	20	23	11	7	42	22	47	57	27	30	78	57	91	39	35	
4-Aug	31	93	90	115	77	72	57	33	27	109	40	103	91	77	57	174	112	321	102	97	
11-Aug	32	294	236	255	182	198	120	77	91	195	216	216	148	199	151	371	243	487	190	215	
18-Aug	33	473	452	388	284	333	155	176	213	245	571	479	198	555	226	497	377	668	356	369	
25-Aug	34	539	636	645	441	447	332	309	354	441	907	643	215	854	378	949	526	861	520	555	
1-Sep	35	826	974	695	559	606	668	410	515	708	1,309	838	664	1,134	505	1,287	650	960	761	782	
8-Sep	36	1,034	1,339	1,039	583	653	692	466	653	844	1,627	982	903	1,430	594	1,440	759	1,067	976	949	
15-Sep	37	1,198	1,435	1,100	583	656	714	466	774	844	1,667	1,180	960	1,525	612	1,472	778	1,070	982	1,001	
22-Sep	38	1,198	1,435	1,100	583	656	714	466	774	844	1,667	1,180	960	1,525	612	1,472	778	1,070	982	1,001	
		<b>1,198</b>	<b>1,435</b>	<b>1,100</b>	<b>583</b>	<b>656</b>	<b>714</b>	<b>466</b>	<b>774</b>	<b>844</b>	<b>1,667</b>	<b>1,180</b>	<b>960</b>	<b>1,525</b>	<b>612</b>	<b>1,472</b>	<b>778</b>	<b>1,070</b>	<b>982</b>	<b>1,001</b>	<b>7</b>
Pinks (all FWs)																					
Week Ending (Sat)	Stat wk	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	MEAN EVEN YR (92-16)	2018
26-May	21																				
2-Jun	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
9-Jun	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
16-Jun	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
23-Jun	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
30-Jun	26	-	-	-	3	-	2	-	-	-	-	-	-	-	-	-	5	-	-	-	1
7-Jul	27	-	2	-	19	8	17	3	-	-	9	2	2	-	45	1	76	2	7	3	2
14-Jul	28	13	43	17	334	114	156	12	1	11	34	15	46	-	237	28	235	70	62	38	
21-Jul	29	68	97	95	4,573	741	2,141	131	3	58	885	69	434	1	1,102	248	687	273	568	232	
28-Jul	30	179	1,208	441	16,373	4,206	6,769	284	622	166	4,220	220	2,010	46	5,581	2,873	1,512	2,025	2,907	1,202	
4-Aug	31	1,207	11,139	2,523	23,566	11,400	12,094	1,118	5,643	446	8,014	539	5,781	595	10,236	6,914	2,715	6,337	11,662	3,449	
11-Aug	32	5,121	19,036	6,674	27,813	25,444	15,229	1,785	11,391	938	25,157	1,908	8,167	2,001	18,065	10,142	4,581	9,242	19,059	6,819	
18-Aug	33	7,879	24,858	10,927	30,003	32,033	16,678	2,301	15,167	1,199	33,928	3,402	8,776	4,834	21,126	12,327	5,632	11,441	24,488	9,675	
25-Aug	34	8,695	28,565	13,074	32,614	34,872	18,603	2,637	16,740	1,554	38,563	4,103	8,927	6,452	23,329	17,804	6,195	12,580	29,533	11,782	
1-Sep	35	9,755	32,995	13,816	33,375	35,467	19,576	2,783	17,378	1,849	41,143	4,402	10,061	7,201	24,364	21,706	6,385	12,911	34,932	12,934	
8-Sep	36	10,125	40,298	15,834	33,560	35,596	19,719	2,817	17,599	1,932	42,012	4,530	10,449	7,599	24,725	23,584	6,467	13,191	37,705	13,508	
15-Sep	37	10,194	42,508	15,893	33,560	35,605	19,781	2,817	17,662	1,932	42,120	4,610	10,637	7,694	24,801	24,038	6,476	13,197	37,748	13,588	
22-Sep	38	10,194	42,508	15,893	33,560	35,605	19,781	2,817	17,662	1,932	42,120	4,610	10,637	7,694	24,801	24,038	6,476	13,197	37,748	13,588	
		<b>10,194</b>	<b>42,508</b>	<b>15,893</b>	<b>33,560</b>	<b>35,605</b>	<b>19,781</b>	<b>2,817</b>	<b>17,662</b>	<b>1,932</b>	<b>42,120</b>	<b>4,610</b>	<b>10,637</b>	<b>7,694</b>	<b>24,801</b>	<b>24,038</b>	<b>6,476</b>	<b>13,197</b>	<b>37,748</b>	<b>13,125</b>	<b>2</b>
Chum (all FWs)																					
Week Ending (Sat)	Stat wk	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	00-17 Cum Mean	2018
26-May	21													0	0	0	0	0			
2-Jun	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
9-Jun	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
16-Jun	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
23-Jun	25	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	0
30-Jun	26	-	-	-	-	-	-	-	-	-	1	2	-	-	1	-	1	-	-	-	0
7-Jul	27	-	-	5	-	-	-	1	-	6	1	2	1	1	1	1	3	-	1	1	3
14-Jul	28	1	1	5	1	1	1	2	-	6	1	2	3	1	3	2	4	-	2	2	
21-Jul	29	1	4	6	6	3	4	5	-	11	1	9	7	2	4	2	5	-	2	4	
28-Jul	30	2	8	10	32	12	20	6	7	17	11	15	17	3	7	11	7	14	7	11	
4-Aug	31	11	19	15	54	24	54	23	22	22	13	23	41	13	9	17	16	33	26	24	
11-Aug	32	24	35	17	84	64	73	40	53	27	23	28	59	15	14	28	29	51	30	39	
18-Aug	33	43	62	25	99	99	80	67	75	28	45	45	72	33	15	33	44	102	34	56	
25-Aug	34	64	87	34	141	140	99	101	91	35	58	61	77	55	23	49	81	132	39	76	
1-Sep	35	128	103	39	169	215	134	127	107	49	83	67	124	80	45	61	103	155	47	102	
8-Sep	36	182	147	52	175	239	139	139	121	52	104	71	144	99	51	79	137	224	68	124	
15-Sep	37	240	162	54	175	242	144	139	132	52	108	75	156	106	52	83	141	228	68	131	
22-Sep	38	240	162	54	175	242	144	139	132	52	108	75	156	106	52	83	141	228	68	131	
<b>Grand Total</b>		<b>240</b>	<b>162</b>	<b>54</b>	<b>175</b>	<b>242</b>	<b>144</b>	<b>139</b>	<b>132</b>	<b>52</b>	<b>108</b>	<b>75</b>	<b>156</b>	<b>106</b>	<b>52</b>	<b>83</b>	<b>141</b>	<b>228</b>	<b>68</b>	<b>131</b>	<b>3</b>