



Sayt-K'il'im-Goot – One Heart, One Path, One Nation

2014 NASS RIVER SALMON STOCK ASSESSMENT UPDATE – MONDAY, 15 SEPTEMBER

The following is the eleventh and final general public in-season update for Nass River salmon and summer-run steelhead stock assessments for 2014 from the Nisga'a Fisheries and Wildlife Department of Nisga'a Lisims Government. *A preliminary post-season update of Nass salmon and summer-run steelhead will be available publicly in the last week of November 2013.*

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 2014

Fishwheel Assessment data: 1 June – 13 September (**OPERATIONS ENDED ON 13 SEPTEMBER**)

Meziadin Fishway data: 1 July – 14 September

Kwinageese Weir data: 10 July – 14 September

GITWINKSIHLKW (GW) FISHWHEELS (NASS TEST FISHERY –STARTED IN 1994 [21st year]):

The Nass River test fishery fishwheels began operation on 1 June (FW1 and FW2) for tagging and historical catch index assessments for salmon and summer-run steelhead, and shutdown on 13 September. All fish caught in the GW fishwheels were released alive after tagging and/or counting. Nass River mainstem water levels ranged between 0.10 m (13 Sep) to 4.0 m (4 June). The mean water level in 2014 (1.8 m) was below the historical mean water level (2.2 m) from 1994 to 2013. A chart of the water levels at the test fishery follow the text summary that show 2014 levels to historical levels. The Nass River water temperature averaged 8.9°C during fishwheel operations in 2014, ranging between 6.0°C (4 June) and 11.0 °C (15 July). The mean water temperature was similar to the historical mean temperature (8.8°C) from 1994 to 2013.

GREASE HARBOUR (GH) FISHWHEELS:

Four fishwheels (FW3, FW4, FW5, and FW6) operated at Grease Harbour (upstream of Ts'im Anwihlist) in 2014. Start-up dates were 8 June (FW3, FW5, and FW6) and 1 July (FW4) and shutdown dates were 2 September (FW4 and FW6) and 6 September (FW3 and FW5). These fishwheels were used for in-season mark-recapture tag recoveries, abundance estimates, additional tagging (adult Chinook and Chum salmon, and Pacific Lamprey), and for harvesting (Sockeye Salmon for the Nisga'a Lisims Government's Nass River In-land Demonstration Fishery that is part of DFO's Inland Selective Demonstration Fishery Program and Coho Salmon as part of the Nisga'a Treaty). Of the 46,092 salmon caught at the GH fishwheels, 9,074 (4,916 Sockeye and 4,158 Coho) were harvested and 37,018 were released.

NFWD has also partnered with the Integrated Fukushima Ocean Radionuclide Monitoring (InFORM) Program being conducted by Health Canada and the University of Victoria, and 10 Nass Sockeye and 10 summer-run steelhead were sacrificed from the GH fishwheels for radiation testing from 26-31 August. The results of the sampling program will be made public when available.

The Nass fishwheel catches in 2014 were above average for Coho, steelhead, even-year Pink, and Pacific Lamprey, and below average for Sockeye, Chinook, and Chum salmon. Final fishwheel catches of salmon, steelhead, and Lamprey are shown below including tagging results and jack salmon caught.

FISHWHEEL CATCH SUMMARIES	SOCK	CHIN	COHO	STEEL	PINK-EVE	CHUM	LAMP
FISHWHEEL TOTAL CATCH OF ADULTS	38,345	1,693	17,137	1,472	24,038	83	629
HISTORICAL AVG CUM CATCH (00-13) TO DATE	41,900	5,400	13,253	964	12,520	130	522
HISTORICAL AVG CUM TOTAL CATCH (00-13)	42,000	5,400	13,300	1,000	13,000	130	500
AVERAGE DAILY CATCH (5 D) OF ADULTS - GW	19	0	76	6	91	1	1
AVERAGE DAILY CATCH (5 D) OF ADULTS - GH	0	0	0	0	0	0	0
FISHWHEEL TOTAL TAGGED (OR ADIPOSE FIN MARKED)	7,950	1,480	5,084	1,324	NA	77	426
FISHWHEEL TOTAL JACKS - GW ONLY	2,005	235	61	NA	NA	NA	NA
HISTORICAL MEAN JACKS AT GW (94-13) TO DATE	1,260	210	121	NA	NA	NA	NA

Other adult species and juvenile salmon catches at the fishwheels to date include: 213 Dolly Varden, 97 Pike Minnow, 72 Rainbow Trout, 68 Whitefish, 42 Peamouth Chub, 33 Sculpin, 12 Sucker, 9 Red-Side Shiner, 4 River Lamprey, and 131 salmon smolts (93 Coho, 19 Chinook, 19 Sockeye), 1 frog, and 1 live beaver.

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

In-season estimates of run size to Gitwinksihlkw fishwheels for adult Nass salmon and summer-run steelhead are shown below for 2014. The in-season run size estimates were above average for Nass Coho and summer-run steelhead, and below average for Sockeye and Chinook salmon when compared to mean returns from 1994 to 2013. Run size targets to GW were reached for Sockeye, Coho, and summer-run steelhead based on in-season data. Note that summer-run steelhead estimates begin on 1 July.

	SOCK	CHIN	COHO	STEEL		13-Sep-14
IN-SEASON RUN SIZE ESTIMATE TO DATE	271,134	13,132	132,958	12,646		
HISTORICAL MEAN RUN SIZE TO GW FOR DATE (94-13)	275,000	20,800	81,308	10,100		
RUN SIZE TARGET 2014 (MIN. FOR STEELHEAD)	250,000	15,000	65,000	4,200		

In-season **Nass Sockeye** estimates were generated using mark-recapture data from GH fishwheels that fluctuated over a 5 d period as GW tagged fish pass the GH site. The MR estimate (~271,000) was based on total tags applied at GW fishwheels (7,950), catch at GH and Upper Stratum IS fisheries (36,602), and tag recoveries in the Upper Stratum (1,232). In comparison, fishwheel catch index estimates were based on historical catch and water level expansions and ranged from 115,000 to 464,000 with a mean estimate of 255,000. The MR estimate was considered more accurate at predicting the in-season abundance of the run passing the GW fishwheels. Final mark rates for Nass Sockeye (and other species described below) will be determined from spawning ground assessments that will provide final post-season abundance estimates.

The in-season **Upper Nass Chinook** estimate (13,132) was derived using a new mark-recapture method based on tags applied at GH fishwheels (1,076), total catch (1,447) and tag recoveries (136) to estimate mark rates and compute daily abundance estimates. In comparison, fishwheel catch index estimates ranged from 3,600 to 28,500 with a mean estimate of 6,300 passing GW fishwheels. The MR estimate is hoped to be a more accurate estimate at predicting the in-season abundance passing GW.

In-season **Upper Nass Coho** estimates were generated using mark-recapture data from GH fishwheels that fluctuated over a 7 d period as GW tagged fish passed the GH site when cumulative tag recoveries at GH fishwheels reach > 12. The MR estimate (~133,000) was based on tags applied at GW fishwheels (5,084), total catch at GH and Upper Stratum IS fisheries (11,754), and tag recoveries in the Upper Stratum (590). In comparison, fishwheel catch index estimates ranged from 85,000 to 227,000 with a mean estimate of 137,000. The MR estimate was considered more accurate at predicting the in-season abundance of the run passing the GW fishwheels.

The mark-rates for Coho were used to estimate the in-season summer-run steelhead abundance based on higher catches of Coho that can determine fishwheel catch efficiencies for expanding steelhead catches at GW. Based on this method, the **Upper Nass summer-run steelhead** in-season MR estimate was 12,700 compared to

fishwheel catch index estimates that ranged from 9,300 to 24,500 with a mean estimate of 14,900 passing GW fishwheels.

Net escapement estimates for adult Nass salmon and summer-run steelhead:

Based on current in-season data, net escapement targets for Nass Sockeye (200,000), Coho (60,000), and summer-run steelhead (4,000 minimum) were reached in 2014, and were just short for Upper Nass Chinook (13,000) depending on the final post-season escapement estimates and harvests above GW.

IN-SEASON NET ESCAPEMENT ESTIMATES	SOCK	CHIN	COHO	STEEL		13-Sep-14
HARVEST ESTIMATES ABOVE GW TO DATE	40,441	2,007	5,277	144		
NET ESCAPEMENT (ABOVE GW):	230,693	11,125	127,681	12,502		
NET ESCAPEMENT TARGET (UPPER RIVER ONLY)	200,000	13,000	60,000	4,000		

MEZIADIN FISHWAY UPDATE

The Meziadin Fishway operations started on 1 July and will continue to the second week of October. Counts of salmon and steelhead at the fishway are currently below average for large Sockeye, well below average for Chinook, and above average for Coho and summer-run steelhead based on mean counts from 1994 to 2013. The escapement target (160,000) for Meziadin Sockeye is not currently on track to be reached. The Meziadin River water temperature is currently 0.1°C higher than the 1998-2013 average (13.0°C vs. 12.9°C).

MEZIADIN FISHWAY DATA	SOCK	CHIN	COHO	STEEL	BULL TROUT	14-Sep-14
TOTAL COUNTS OF ADULTS TO DATE	137,747	42	4,895	8	9	
HISTORICAL MEAN COUNT FOR DATE (94-13)	161,590	416	2,354	6	NA	
HISTORICAL MEAN TOTAL COUNT AT MEZ (94-13)	167,000	440	3,800	30	NA	
ESTIMATED % RETURN TO DATE BASED ON MEAN TIMING	97%	93%	65%	22%		
ESTIMATED FORECAST TO RETURN TO DATE BASED ON MEAN%	142,000	50	8,000	40		
AVG DAILY COUNT OF ADULTS (PAST 5 D)	932	0	324	1	NA	
TOTAL COUNTS OF TAGS (or adipose punches)	2,662	2	163	0	NA	
TOTAL COUNTS OF JACKS	9,875	46	21	NA	NA	

KWINAGEESE WEIR UPDATE

The Kwinageese weir operations started on 10 July when the weir was fish tight and will continue to the second week of October. The water level at the weir site is currently 0.15 m lower than the 2002, 2009-2013 average (0.19 m vs. 0.34 m). The water temperature is currently 1°C higher than the 2002, 2009-2013 average (13°C vs. 12°C). Counts of salmon to date are well below average for Sockeye, Chinook, and above average for Coho and summer-run steelhead based on past monitored years not impacted by the blockage.

KWINAGEESE WEIR DATA	SOCK	CHIN	COHO	STEEL	BULL TROUT	14-Sep-14
TOTAL COUNTS OF ADULTS TO DATE	415	574	541	106	63	
HISTORICAL MEAN COUNT FOR DATE (02,05-06,12-13)	4,910	972	514	25	NA	
HISTORICAL MEAN TOTAL COUNT (02,05-06,12-13)	5,014	995	1,158	223	NA	
ESTIMATED % RETURN TO DATE BASED ON MEAN TIMING	98%	98%	44%	11%		
ESTIMATED FORECAST TO RETURN TO DATE BASED ON MEAN%	420	590	1,220	Too early		
TOTAL COUNTS OF TAGS (or adipose punches)	3	41	9	2	NA	
TOTAL COUNTS OF JACKS	0	4	0	NA	NA	

With funding support from the Pacific Salmon Commission’s Northern Fund, three helicopter flights were conducted for assessing the water pooling capacity below the blockage falls area at low water levels (15 July and 5 August), and engineering planning for future remediation (10 September). With the loss of several of the concrete blocks from the center of the channel, the backwatering effect of the concrete weir has diminished but not been eliminated entirely. The current height of the falls (~1.4 m) is within the acceptable range for passage of adult Chinook, Coho, Sockeye, and steelhead. Salmon and steelhead continue to pass the Kwinageese weir each day so no immediate remedial actions at the blockage area were planned for 2014. Engineering designs are being prepared for a more permanent solution to improve passage at the blockage site in 2015 and are based on information collected on 10 September.

HARVEST ESTIMATES FOR ADULT NASS SALMON & STEELHEAD

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

Alaskan commercial gillnet fisheries in **District 101 (Tree Point)** and **District 106 (Sumner and Upper Clarence)** started on 15 June and 16 June, respectively, and continue to date. Alaskan commercial seine fisheries start/end dates: **District 101 (Lower Clarence/Revilla)** on 6 July/29 August, **District 102 (Middle Clarence)** on 15 June/10 September, **District 103 (Cordova)** on 20 July/29 August, and **District 104 (Noyes/Dall)** on 6 July/29 August.

The table below shows the in-season catches of salmon in Alaskan net fisheries in Districts 101-104 (and mean catch comparisons between 2000 and 2013) to **15 September** based on data from ADFG's website. In-season salmon catches were above average for Sockeye (at least in District 104), Chinook, Pink and Coho, and below average for Chum. Catches of even-year Pinks (23.0 million) were 1.8 times higher than average (12.5 million) with large salmon catches in the District 104 seine fishery (up to 85 boats participating).

IN-SEASON SE ALASKAN CUM. SALMON CATCH ESTIMATES (ADFG WEBSITE) - 2014								WEEK END:		13-Sep-14	
DISTRICTS	AREA	SOCK CATCH	AVG (00-13)	CHIN CATCH	AVG (00-13)	PINK CATCH	AVG EVE (00-13)	CHUM CATCH	AVG (00-13)	COHO CATCH	AVG (00-13)
DIST 101 GN	TREE PT	47,000	79,000	1,300	1,400	676,000	371,000	196,000	243,000	43,000	36,000
DIST 106 GN	UPP. CLAR	54,000	93,000	1,600	1,500	397,000	158,000	110,000	172,000	186,000	109,000
DIST 101 SN	LOW CLAR	64,000	58,000	1,000	800	6,222,000	4,407,000	185,000	270,000	51,000	39,000
DIST 102 SN	MID CLAR.	43,000	34,000	1,600	740	3,620,000	3,206,000	358,000	448,000	49,000	50,000
DIST 103 SN	CORDOVA	24,000	25,000	300	500	2,995,000	2,071,000	50,000	133,000	32,000	30,000
DIST 104 SN	NOYES/DALL	648,000	250,000	11,600	6,200	9,111,000	2,381,000	178,000	176,000	142,000	65,000
CUMULATIVE TOTAL		880,000	539,000	17,400	11,140	23,021,000	12,594,000	1,077,000	1,442,000	503,000	329,000

Of the total in-season Sockeye catch reported in Alaskan fisheries in 2014 (880,000), approximately 158,000 (~18%) were estimated as Nass origin based on mean stock composition estimates from 1982 to 2011. The estimated catch of Nass Sockeye was above average (131,000). The average total mean harvest of Nass Sockeye in Alaskan fisheries from 2000 to 2012 run reconstructed results is 138,000 (range: 47,000-300,000).

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

DFO commercial net fishery openings in Area 3 for 2014 were 17 gillnet and 14 seine. Commercial harvest and release data to date for salmon and steelhead in Area 3 net fisheries are shown below:

GEAR	DATE	Vessels	SO-harv	SO-Rel	CO-HARV	CO-Rel	PK-HARV	PK-Rel	Chum-harv	Chum-Rel	CH-harv	CH-Rel	STEEL-Rel
GN	6/10/2014	148	4,929	0	2	1	34	0	0	16	300	92	63
	6/11/2014	109	4,770	0	0	0	24	0	0	15	71	39	24
	6/16/2014	152	14,234	0	12	0	1	0	0	23	417	56	35
	6/17/2014	145	5,718	0	19	4	1	0	0	23	66	57	44
	6/23/2014	166	15,591	0	40	7	16	0	0	164	264	53	27
	6/24/2014	118	9,294	0	60	7	15	0	0	252	284	43	8
	6/26/2014	166	9,981	0	105	10	53	7	0	305	377	77	5
	6/27/2014	135	5,752	0	99	8	99	0	0	145	110	32	4
	6/30/2014	166	10,579	0	235	0	876	0	0	793	311	75	8
	7/1/2014	140	6,644	0	43	0	459	0	0	198	9	10	0
	7/3/2014	158	5,953	0	150	0	2,370	0	1,634	198	0	32	0
	7/4/2014	132	4,582	0	61	0	3,435	0	2,313	50	0	17	0
	7/7/2014	140	6,476	0	137	0	3,372	0	0	711	0	194	0
	7/8/2014	106	1,249	0	9	0	574	0	0	206	0	15	0
	7/27/2014	61	2,471	0	210	0	7,209	0	0	584	0	0	0
	7/30/2014	13	1,100	0	127	0	4,652	0	0	196	0	0	7
	7/31/2014	14	780	0	125	0	2,681	0	0	153	0	0	10
GN Total		2,069	110,103	0	1,434	37	25,871	7	3,947	4,032	2,209	792	235
SN	7/7/2014	8	600	0	142	0	2,483	0	3,266	0	0	7	0
	7/8/2014	8	1,112	0	173	0	3,568	0	3,839	0	0	25	0
	7/14/2014	22	0	1,417	628	0	39,855	0	5,314	0	0	81	4
	7/15/2014	22	0	3,168	726	0	82,192	0	4,048	0	0	116	0
	7/17/2014	27	0	3,496	1,089	0	146,232	0	6,642	0	0	182	0
	7/18/2014	27	0	2,592	486	0	96,255	0	2,889	0	0	105	0
	7/21/2014	18	0	2,124	661	0	92,804	0	0	4,554	0	103	0
	7/22/2014	18	0	2,484	763	0	84,485	0	0	3,816	0	109	0
	7/28/2014	13	6,713	0	304	0	111,500	0	0	735	0	32	11
	7/29/2014	13	6,946	0	752	0	42,307	0	0	573	0	34	30
	8/4/2014	13	3,167	0	933	0	56,227	0	0	1,320	0	29	28
	8/5/2014	20	2,347	0	1,541	0	85,728	0	0	2,089	0	10	13
	8/11/2014	5	0	1,100	337	0	9,097	0	0	262	0	1	0
	8/12/2014	5	0	560	176	0	4,679	0	0	203	0	3	0
SN Total		219	20,885	16,941	8,711	0	857,412	0	25,998	13,552	0	837	86
Grand Total		2,288	130,988	16,941	10,145	37	883,283	7	29,945	17,584	2,209	1,629	321

LABELS: SO=SOCKEYE, PK=PINK, CO=COHO, CH=CHINOOK; STEEL=STEELHEAD, HARV=HARVESTED, AND REL=RELEASED.

DFO implemented management actions in Area 3 in 2014 to reduce harvest impacts on the Kwinageese Sockeye stock during their migration through Area 3. The stock requires rebuilding from a past spawning barrier detected

in 2011 and from poor returns in 2010 and from 2012-2013. Sockeye retention was not permitted in commercial fisheries in Area 3 from 12-24 July, the anticipated peak of the Kwinageese Sockeye migration, as documented in DFO's 2014 Integrated Fisheries Management Plan (IFMP). **Area 3 net fisheries closed on 12 August.**

Sub-area breakout of Area 3 commercial net catch is as follows:

GEAR	AREA 3	Data												
		Vessels	SO-harv	SO-Rel	CO-HARV	CO-Rel	PK-HARV	PK-Rel	Chum-harv	Chum-Rel	CH-harv	CH-Rel	STEEL-Rel	
GN	3-12	1032	58,501	0	400	18	9,397	4	0	1,151	1,754	447	137	
	3-7B	522	26,991	0	409	13	9,829	1	2,729	1,395	132	139	35	
	3-7A	449	20,942	0	510	6	4,789	2	0	1,357	261	196	63	
	BOSTON ROCKS	66	3,669	0	115	0	1,856	0	1,218	129	62	10	0	
GN Total		2,069	110,103	0	1,434	37	25,871	7	3,947	4,032	2,209	792	235	
SN	3-7B	100	4,502	9,457	4,213	0	401,285	0	11,367	7,377	0	456	15	
	BOSTON ROCKS	57	1,584	4,630	1,614	0	208,715	0	8,939	2,787	0	182	17	
	MASK	28	14,207	60	1,752	0	138,932	0	0	1,382	0	61	53	
	TRACEY BAY	31	457	2,754	1,064	0	98,780	0	5,692	1,833	0	128	0	
SN Total		219	20,885	16,941	8,711	0	857,412	0	25,998	13,552	0	837	86	
Grand Total		2,288	130,988	16,941	10,145	37	883,283	7	29,945	17,584	2,209	1,629	321	

Note: SN total includes two sub areas not shown due to fewer than 5 boats fished.

Of the 130,988 Sockeye harvested in Area 3 commercial fisheries in 2014, we estimated approximately 95,000 (72%) were of Nass origin. Of the 366,000 Sockeye harvested in Area 4 gillnet fisheries, we estimated approximately 12,000 (10%) were of Nass origin in the Northern Area 4 areas. Some Nass Sockeye would also be intercepted in northern Area 4 seine fisheries but this information was not available for this update.

Area 3 was also opened to the commercial troll fishery (Area F) starting on 18 August for retention of Coho and Pink salmon only. Approximately, 16,000 Coho salmon were caught in Area 3 to date based on DFO's North coast public update.

UPPER NASS HARVESTS – GITANYOW FISHERIES (information courtesy of the Gitanyow Fisheries Authority)

Reported salmon harvests in Gitanyow fisheries to date are: 16,899 Sockeye, 81 Chinook (66 large and 15 small), and 9 Coho based on FSC catches to 6 September and DFO's Inland Selective Economic Demonstration Fishery Program for Sockeye (6,229). The Gitanyow acquired 63 Area C licenses and were allocated 6,229 Sockeye based on Area 3 commercial gillnet catches in 2014. Of the total catch reported in Gitanyow fisheries, 255 Sockeye tags were returned to NFWD. The average salmon harvests in Gitanyow fisheries from 2000 to 2013 are: 7,200 Sockeye, 153 Chinook (large), and 193 Coho.

NISGA'A DOMESTIC (FSC) AND SALE FISHERIES:

Nisga'a domestic and sale fisheries are monitored by the Nisga'a Fisheries and Wildlife Department from May to the end of August. Monitoring began on 4 May 2014 and ended on 30 August. Cumulative harvests to **30 August** are shown in the table below. For the domestic harvest week ending period to 30 August, mean cumulative harvests from 2000 to 2013 are shown for comparison. The domestic harvest estimates in 2014 were above average for Sockeye, Pink, Coho, and steelhead (spring and summer runs combined), and below average for Chum salmon. Overall harvests were below mean harvests from 2000 to 2013 for all species other than steelhead. Note any salmon or steelhead harvests in Nisga'a fisheries after 30 August will be collected opportunistically during the non-salmon harvest monitoring program that runs all year long. Any catches after 30 August will be updated in post-season estimates.

FSC Reported Week Ending Period		DOMESTIC (FSC) HARVESTS TO WK END - 2014		TOTAL HARVESTS TO DATE INCLUDING SALE FISHERIES - 2014	
NASS SPECIES	Wk end	Harvest	Mean*	Harvest	Mean*
CHINOOK	30-Aug-14	5,812	5,200	5,812	6,000
SOCKEYE	30-Aug-14	29,787	27,500	79,654	88,000
PINK	30-Aug-14	7,268	2,760	8,212	18,000
COHO	30-Aug-14	2,352	2,120	8,303	11,000
CHUM	30-Aug-14	534	570	534	600
STEELHEAD	30-Aug-14	462	330	462	400

* Mean harvests from 2000-2013 for week end periods. Harvests include all gear types estimates (net, angling, seine, fishwheels, etc.)

Nisga'a Sale fishery information for 2014:

- Total Individual-sale (IS) fisher permits issued in 2014 were 219 (including 45 elder permits). Of the total issued, 119 participated in the sale fisheries from 13 June to 12 August.
- Permit distribution by community was: 50 Gitlakdamix, 41 Gitwinksihlkw, 36 Prince Rupert, 35 Gingolx, 26 Laxgalts'ap, 18 Terrace, and 13 Other (Port Edward, Richmond, Telkwa, Kitkatla, Kitimat, Kitwanga, Prince George and Port Alberni).
- The in-season catch target for the marine IS gillnet fishery was based on ~35% of the estimated sale target (~24,500 Sockeye based on pre-season return forecasts). A total of 8 fisheries were conducted in 2014. The Nisga'a marine sale fishery was closed from 12-24 July for the Kwinageese Sockeye rebuilding management period. The marine IS catch for 2014 was 24,623 Sockeye, 944 Pink, and 284 Coho salmon. **The marine IS fishery for the season on 12 August.** Individual catch data for the marine IS fishery is shown below.

NISGA'A MARINE SALE FISHERY:			
NUMBER OF NISGA'A MARINE FISHERIES (16 HR OPENINGS):		8	13-14 JUNE, 19-20 JUNE, 28-29 JUNE, 6 JULY & 12 AUGUST
DATA FROM 13 JUNE FISHERY (18 BOATS - 16 FISHERS) - REVIEWED			2770 SOCKEYE
DATA FROM 14 JUNE FISHERY (21 BOATS - 22 FISHERS) - REVIEWED			4731 SOCKEYE
DATA FROM 19 JUNE FISHERY (25 BOATS - 25 FISHERS) - REVIEWED			2356 SOCKEYE
DATA FROM 20 JUNE FISHERY (25 BOATS - 29 FISHERS) - REVIEWED			3669 SOCKEYE
DATA FROM 28 JUNE FISHERY (28 BOATS - 25 FISHERS) - REVIEWED			2595 SOCKEYE
DATA FROM 29 JUNE FISHERY (28 BOATS - 35 FISHERS) - REVIEWED			5078 SOCKEYE, 4 PINK
DATA FROM 6 JULY FISHERY (28 BOATS - 30 FISHERS) - REVIEWED			2842 SOCKEYE, 406 PINK, 5 COHO
DATA FROM 12 AUGUST FISHERY (8 BOATS - 8 FISHERS) - REVIEWED			582 SOCKEYE, 534 PINK, 279 COHO
NEXT NISGA'A MARINE FISHERY PLANNED:			CLOSED FOR THE SEASON

- A total of 7 in-river IS gillnet fisheries were conducted in 2014. The Nisga'a in-river sale fishery closed from 16-28 July for the Kwinageese Sockeye rebuilding management period as the stock passes upriver. The in-river IS catch for 2014 was 20,328 Sockeye and 1,509 Coho salmon. **The in-river IS fishery closed for the season on 11 August.** Individual catch data for the in-river IS fishery is shown below.

NISGA'A IN-RIVER SALE FISHERY:			
NUMBER OF NISGA'A IN-RIVER FISHERIES (10 HR OPENINGS):		7	5 JULY, 7 JULY, 9 JULY, 11 JULY, 13 JULY, 15 JULY & 11 AUGUST
DATA FROM 5 JULY FISHERY (31 FISHERS) - REVIEWED			1395 SOCKEYE, 2 COHO
DATA FROM 7 JULY FISHERY (32 FISHERS) - REVIEWED			2520 SOCKEYE
DATA FROM 9 JULY FISHERY (40 FISHERS) - REVIEWED			2878 SOCKEYE, 1 COHO
DATA FROM 11 JULY FISHERY (39 FISHERS) - REVIEWED			2477 SOCKEYE
DATA FROM 13 JULY FISHERY (33 FISHERS) - REVIEWED			3319 SOCKEYE, 3 COHO
DATA FROM 15 JULY FISHERY (36 FISHERS) - REVIEWED			4479 SOCKEYE, 1 COHO
DATA FROM 11 AUGUST FISHERY (25 FISHERS) - REVIEWED			3260 SOCKEYE, 1502 COHO
NEXT NISGA'A IN-RIVER FISHERY PLANNED:			CLOSED FOR THE SEASON

- A Nisga'a seiner (Ocean Virtue) was contracted by NLG to fish the entitlement of Nass Area Pink and Coho salmon as part of NLG's communal sale fishery for 2014. The seiner catch limits were set to a maximum of 40,000 Pink and 5,000 Coho salmon based on pre-season entitlement estimates. However, slow fishing resulted in no effort expended.

NLG's inland selective demonstration fishery to date:

NLG were successful in negotiating the leasing of 30 Area C commercial gillnet licenses to participate in DFO's Inland Selective Demonstration Fishery Program in 2014. DFO allocated weekly catches of Sockeye to NLG's inland selective fishery program based on a license sharing formula from commercial gillnet catches in Area 3. These harvests were additional to Nisga'a Treaty Allocations (and IS targets) and had to be caught selectively (no gillnets). The GH fishwheels were used to harvest these additional catch shares as arranged by NLG and Nisga'a Fisheries Limited (NFL). A total of 4,793 Sockeye were allocated to this fishery by DFO. Of the 26,815 Sockeye captured at the GH fishwheels in 2014, 4,916 were harvested (4,793 Sockeye as part of the demonstration fishery from 27-29 June, 5-14 July, and 6-7 August, and 123 as part of the NLG treaty catch) and 21,899 were released. The NLG demonstration fishery closed from 22 July to 3 August for the Kwinageese Sockeye rebuilding management period as the stock passed upriver, and reopened from 6-7 August when DFO allocated additional catch allocations from Area 3 commercial gillnet fisheries that were conducted after 24 July.

The total harvest summary to date in all of the Nisga'a fisheries are as follows:

NISGA'A TOTAL HARVEST SUMMARY	SOCK	CHIN	COHO	PINK-EVE	CHUM	STEEL
MARINE SALE FISHERY TOTAL	24,623	CLOSED	284	944	CLOSED	CLOSED
IN-RIVER SALE FISHERY TOTAL	20,328	CLOSED	1,509	0	CLOSED	CLOSED
INDIVIDUAL SALE (IS) FISHERY TOTAL	44,951	CLOSED	1,793	944	CLOSED	CLOSED
NLG COMMUNAL SELECTIVE FISHWHEEL TREATY FISHERY	123	CLOSED	4,158	CLOSED	CLOSED	CLOSED
NLG COMMUNAL SEINE SELECTIVE TREATY FISHERY	0	0	0	0	CLOSED	CLOSED
DOMESTIC (FSC) GILLNET FISHERY - 4 MAY-30 AUGUST	29,787	5,812	2,352	7,268	534	462
SUB TOTAL (NLG TREATY FISHERIES)	74,861	5,812	8,303	8,212	534	462
NLG SOCK DEMONSTRATION SELECTIVE FISHERY HARVEST	4,793	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED
GRAND TOTAL	79,654	5,812	8,303	8,212	534	462

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

Pre-season forecasts for Nass salmon returns in 2014 projected below average returns for Sockeye, Chinook, even-year Pink, and Chum, and an above average return for Coho. Pre-season Nisga'a treaty catch potential by species are shown below:

PRE-SEASON TRTC & ENTITLEMENT FORECASTS	SOCK	CHIN	COHO	PINK-EVE	CHUM
HISTORICAL MEAN TRTC (1994-2013)	580,000	33,000	200,000	800,000	55,000
PRE-SEASON TRTC FORECAST	542,000	24,000	259,000	496,000	15,000
PRE-SEASON NISGA'A ENTITLEMENT	94,000	5,000	19,200	43,000	No surplus
CUM NISGA'A UNDERAGE (+)/OVERAGE (-): 2000-13	6,407	8,242	7,588	-96	30,193
TOTAL PRE-SEASON NISGA'A CATCH POTENTIAL	100,000	13,200	27,000	43,000	No surplus

The in-season TRTC estimates for Nass salmon were based on mean run timing and included minimum and maximum run timing range estimates from 1994 to 2013 returns (Sockeye was based on marine (Area D) returns from 1982 to 2011). The TRTC and Nisga'a entitlement estimates for Nass salmon were lower than pre-season forecasts based on in-season data.

IN-SEASON TRTC & ENTITLEMENT ESTIMATES	SOCK	CHIN	COHO	PINK-EVE	CHUM
PROJECTED TRTC BASED ON MEAN RUN % & MR EST.	423,000	20,000	245,000	430,000	7,000
ESTIMATED %TRTC TO DATE: MEAN. RUN TIMING	100%	100%	98%	99%	92%
MINIMUM FORECAST	423,000	20,000	241,000	261,000	3,000
MAXIMUM FORECAST	427,000	20,000	275,000	1,811,000	18,000
IN-SEASON NISGA'A ENTITLEMENT TARGET	68,000	4,200	19,200	33,000	No surplus
IN-SEASON UNDERAGE (+)/OVERAGE (-)	6,407	1,610	7,588	-96	small return
TOTAL IN-SEASON NISGA'A TREATY CATCH POTENTIAL	74,000	5,800	27,000	33,000	No surplus
MINIMUM ENTITLEMENT FORECAST	68,000	4,200	19,200	6,904	No surplus
MAXIMUM ENTITLEMENT FORECAST	69,000	4,200	19,200	244,096	No surplus
NLG SELECTIVE DEMONSTRATION FISHERY ALLOCATION	4,793	NA	NA	NA	NA
TOTAL IN-SEASON NISGA'A CATCH POTENTIAL - ALL FISHERIES	79,000	5,800	27,000	33,000	No surplus

Nisga'a harvests in 2014 were close to in-season TRTC catch potentials with the exception of Nass Pink and Coho salmon:

- Sockeye – 79,654 harvested versus 79,000 in-season catch potential (including the demonstration catch);
- Chinook – 5,812 harvested and ~1,600 used from cumulative underage from 2000-2013 (8,200);
- Coho – 8,303 harvested versus 19,200 allocated (plus cumulative underage from 2000-2013 (7,500) was available);
- Pink – 8,212 harvested versus 33,000 allocated; and
- Chum – No surplus identified. Incidental harvest was 534. A cumulative underage from 2000-2013 (~30,000) was available to be caught if the return was strong and above the escapement goal which did not occur in 2014.

For Nass Pink and Chum salmon, where spawning ground assessments continue, we used historical harvest rates to estimate the ranges for in-season TRTC and Nisga'a entitlements based on the commercial catch data in Area 3 in 2014 (883,000 Pink; 47,600 Chum including releases) and a Nass stock adjustment (14% Pink, 1% Chum) based on historical commercial catch estimates. The historical Area 3 harvest rates (and Nass stock

adjustments) for Pink were based on even year estimates from 2000 to 2012 (mean=29%; range 7-47%), and for Chum were based on commercial catch data from 2000-2013 including release data (6%; range 2-12%).

The final Nass River general public stock assessment update from the NFWD with preliminary post-season estimates for 2014 is planned for: **Wednesday, 26 November 2014.**

Final Nass salmon run size updates (including all daily method estimates) and past public updates are available at the following link:

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

Respectfully,

Richard Alexander, R.P.Bio
Nisga'a Fisheries Stock Assessment Management Biologist
Nisga'a Lisims Government - Fisheries & Wildlife Department



CHINOOK SALMON CAUGHT AT THE GW FISHWHEELS ON 2 AUGUST 2014.



CREW LEADER, BEN MUNROE, WITH A TAGGED COHO SALMON AT THE GW FISHWHEELS, 1 AUGUST 2014.

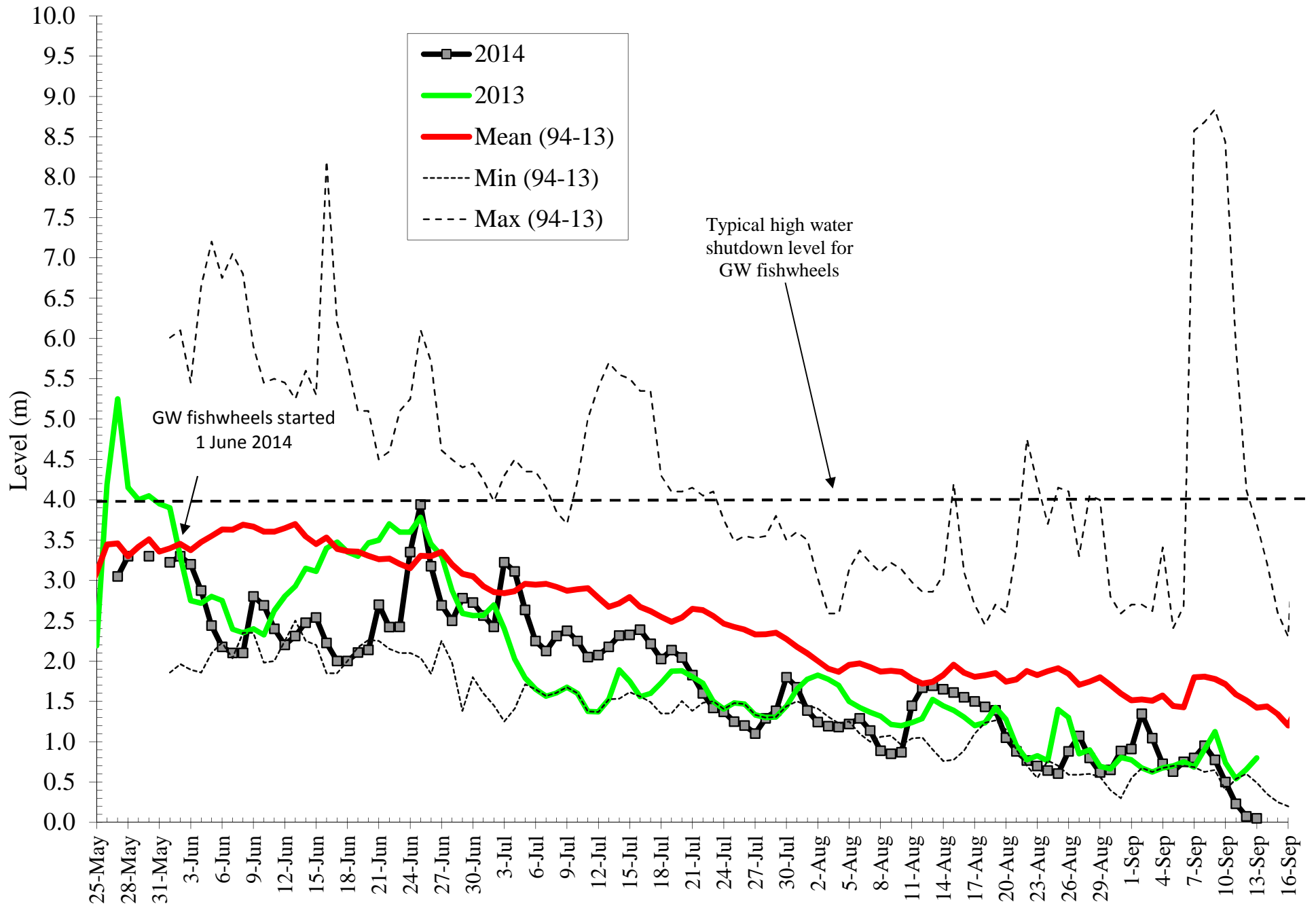


ADRIAN MERCER WITH A TAGGED CHUM CAUGHT AT THE GW FISHWHEELS ON 25 JULY 2014.

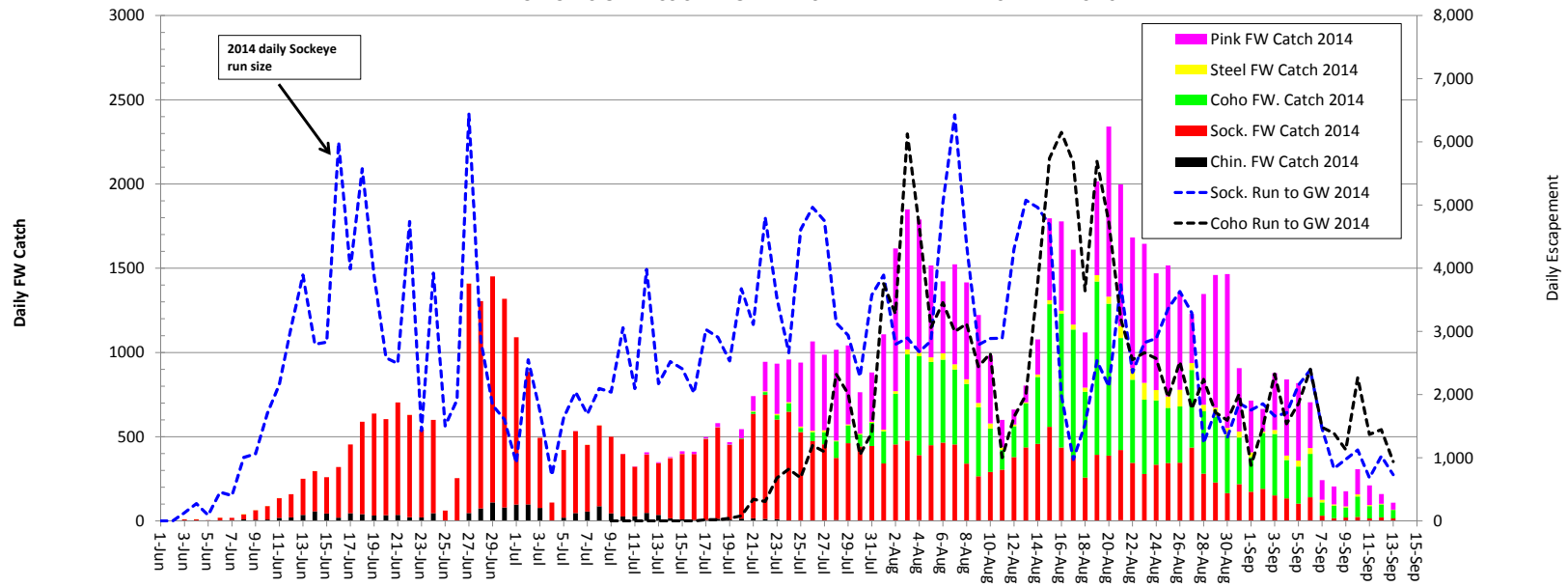


VERN MCKAY AND GARY GONU TAGGING A PACIFIC LAMPREY, ON 31 JULY 2014.

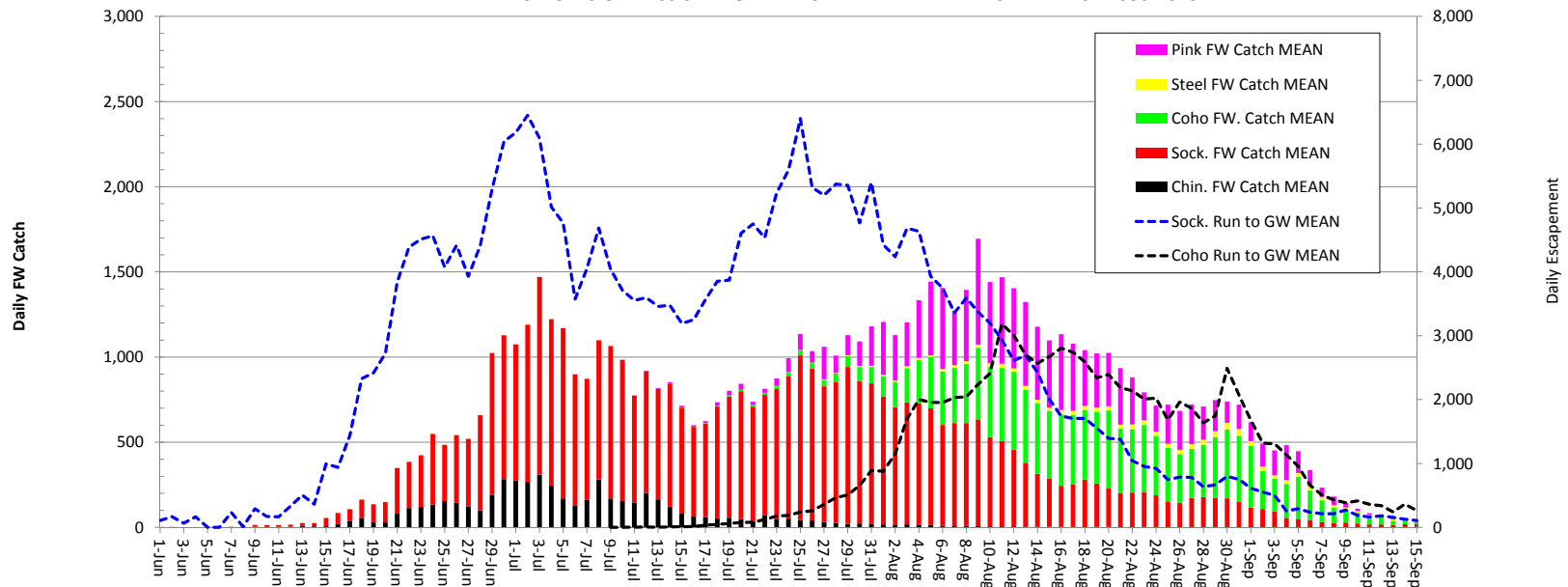
Daily Water Level at Gitwinksihlkw Fishwheels 2014



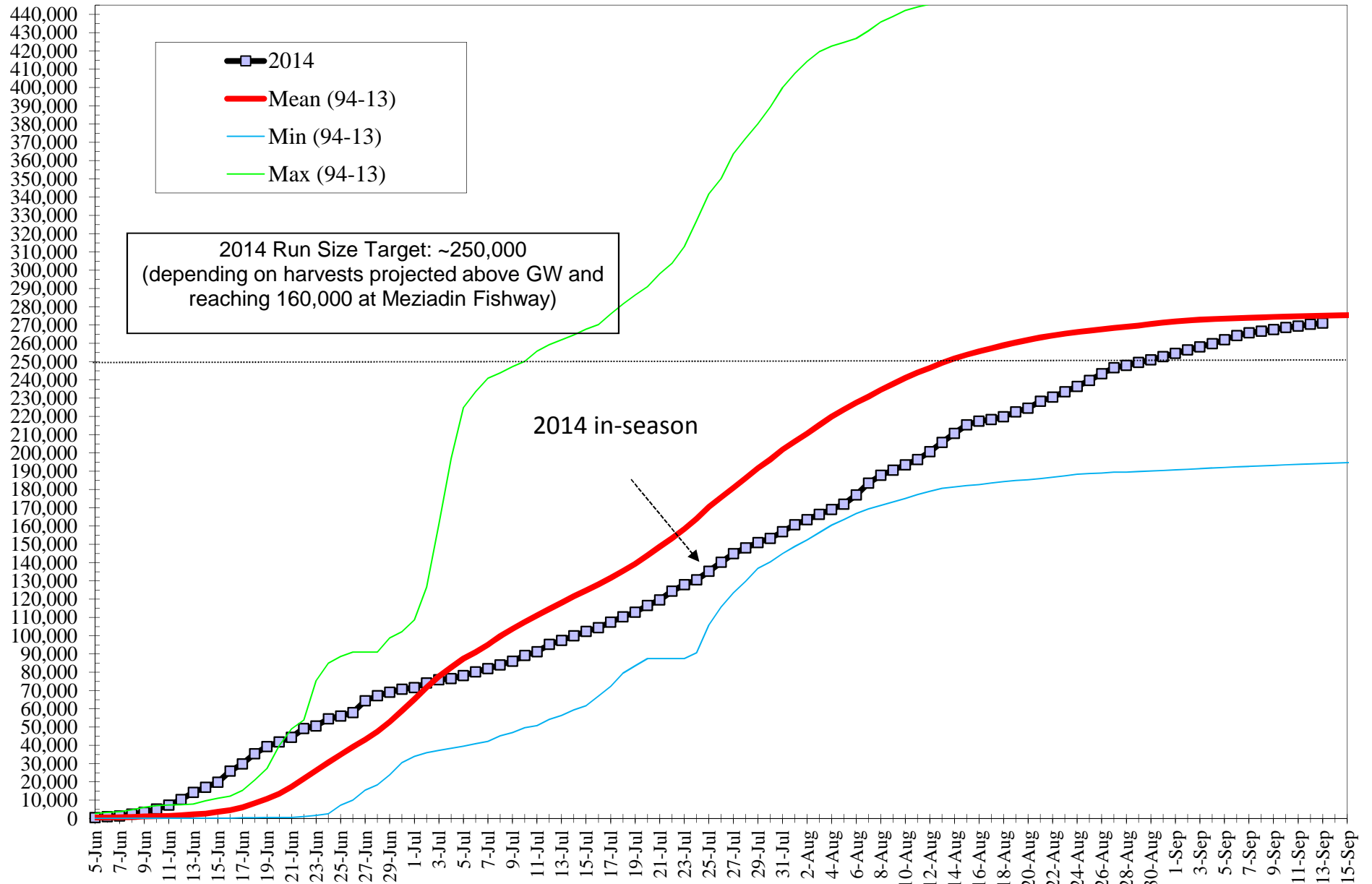
DAILY CATCHES OF NASS SALMON AND STEELHEAD AT THE FISHWHEELS 2014



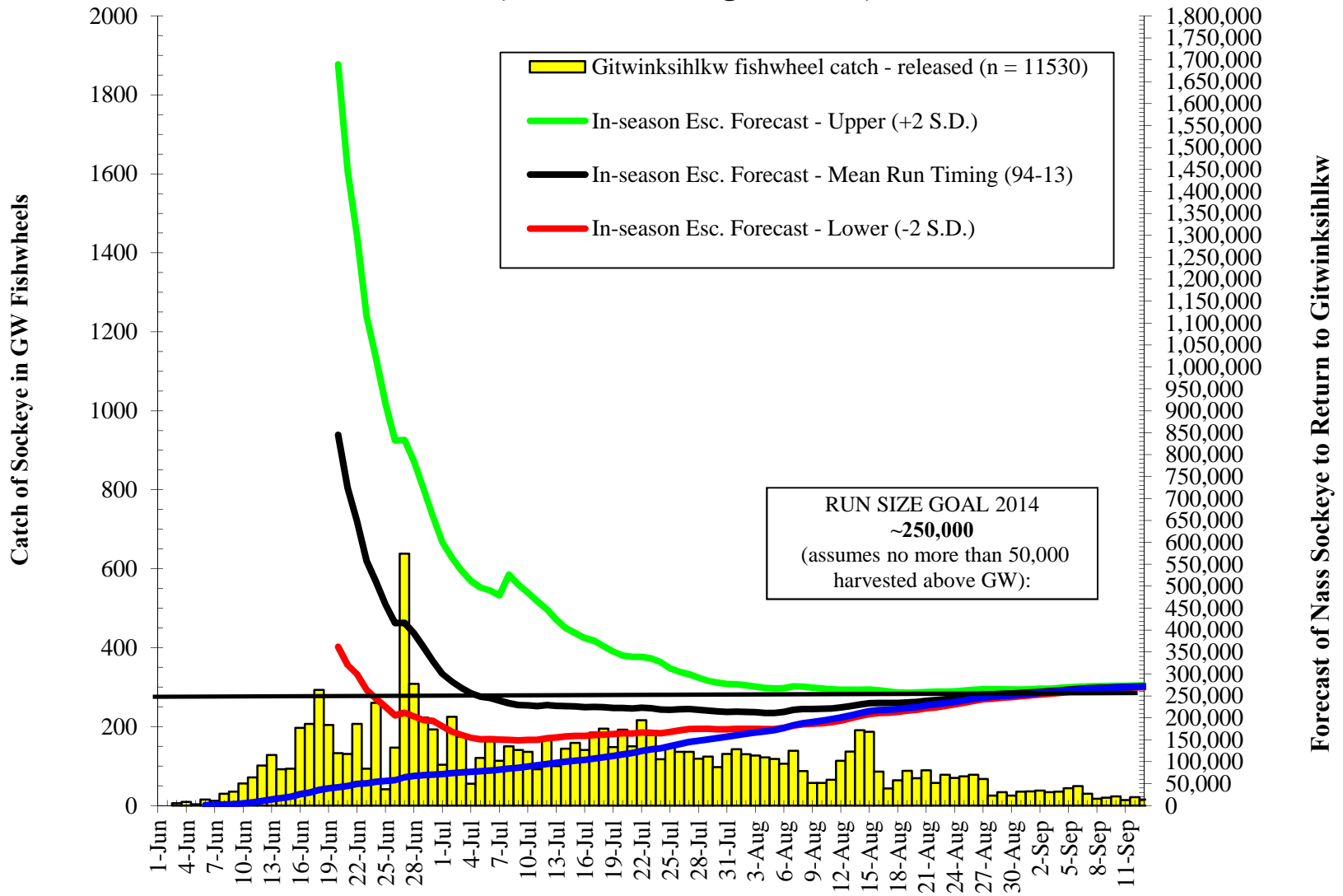
MEAN DAILY CATCHES OF NASS SALMON AND STEELHEAD AT THE FISHWHEELS - 2000-2013



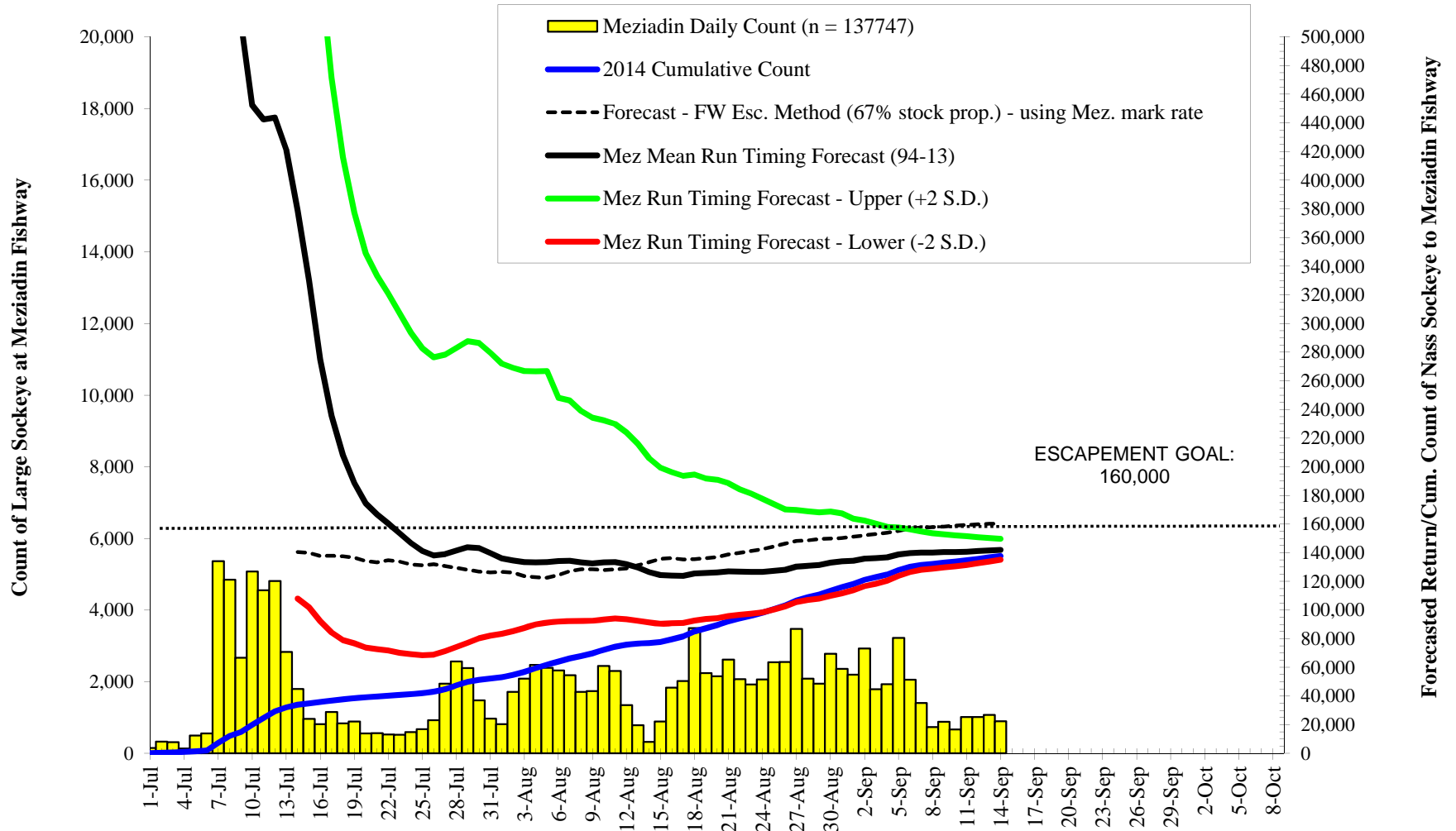
Nass Sockeye Cum. Run Size to Gitwinksilhkw Fishwheels 2014 versus 94-13 Mean, Min, Max returns (before upriver harvests)



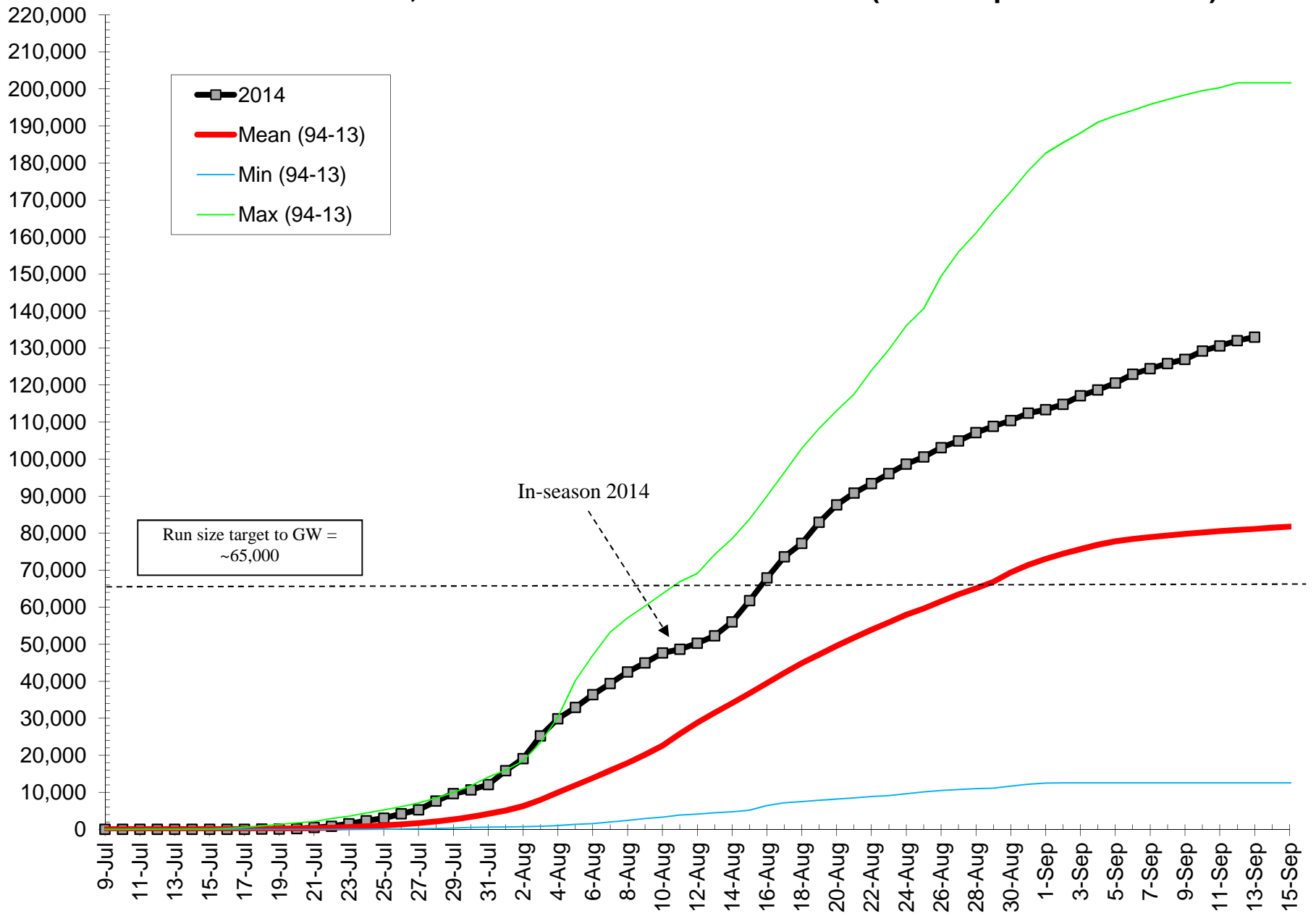
Nass Sockeye (≥ 45 cm NFL) Run Forecasts to Gitwinksihlkw Fishwheels 2014 (Mean Run timing - 1994-13)



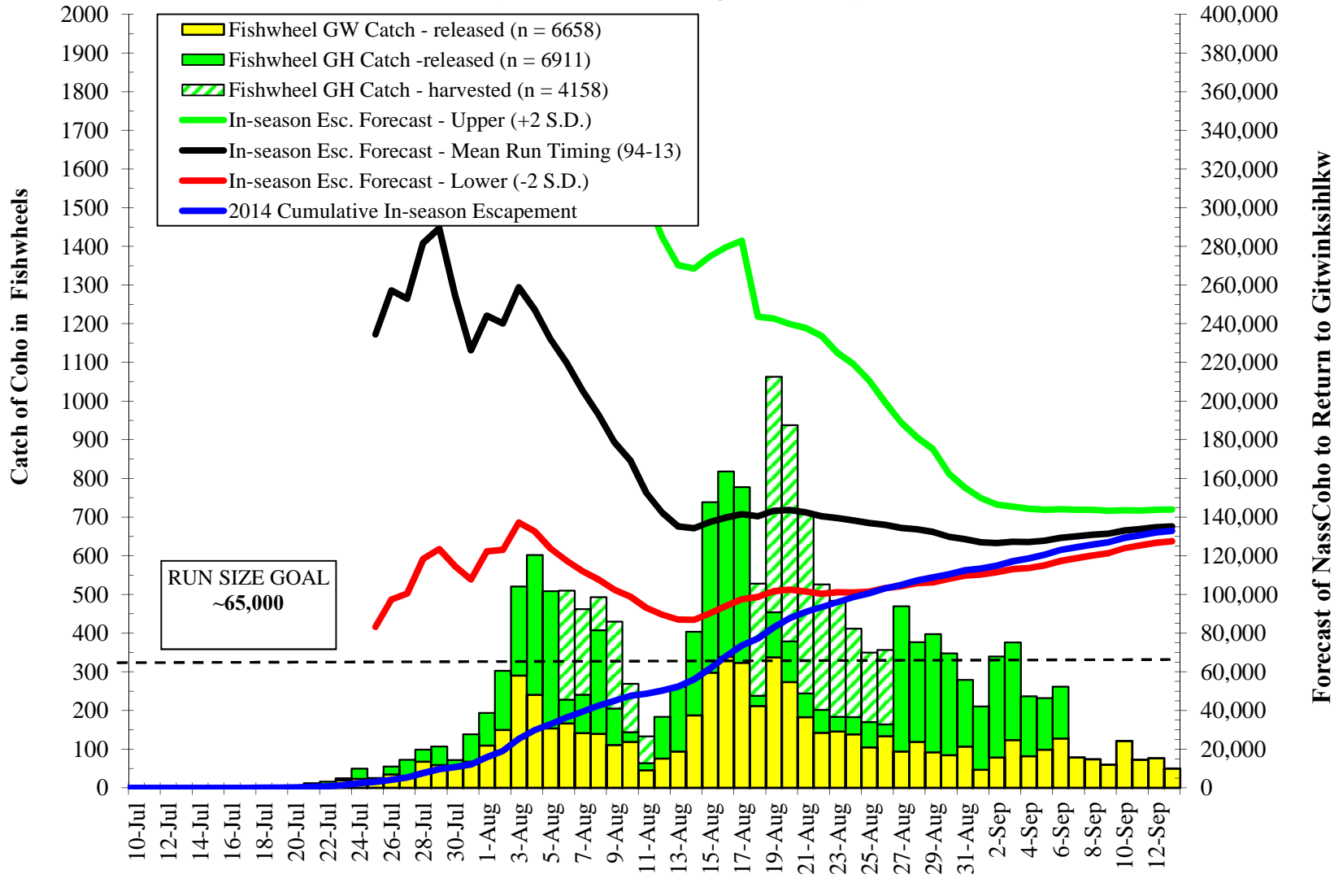
Meziadin Fishway Sockeye Counts & In-season Forecast Data 2014



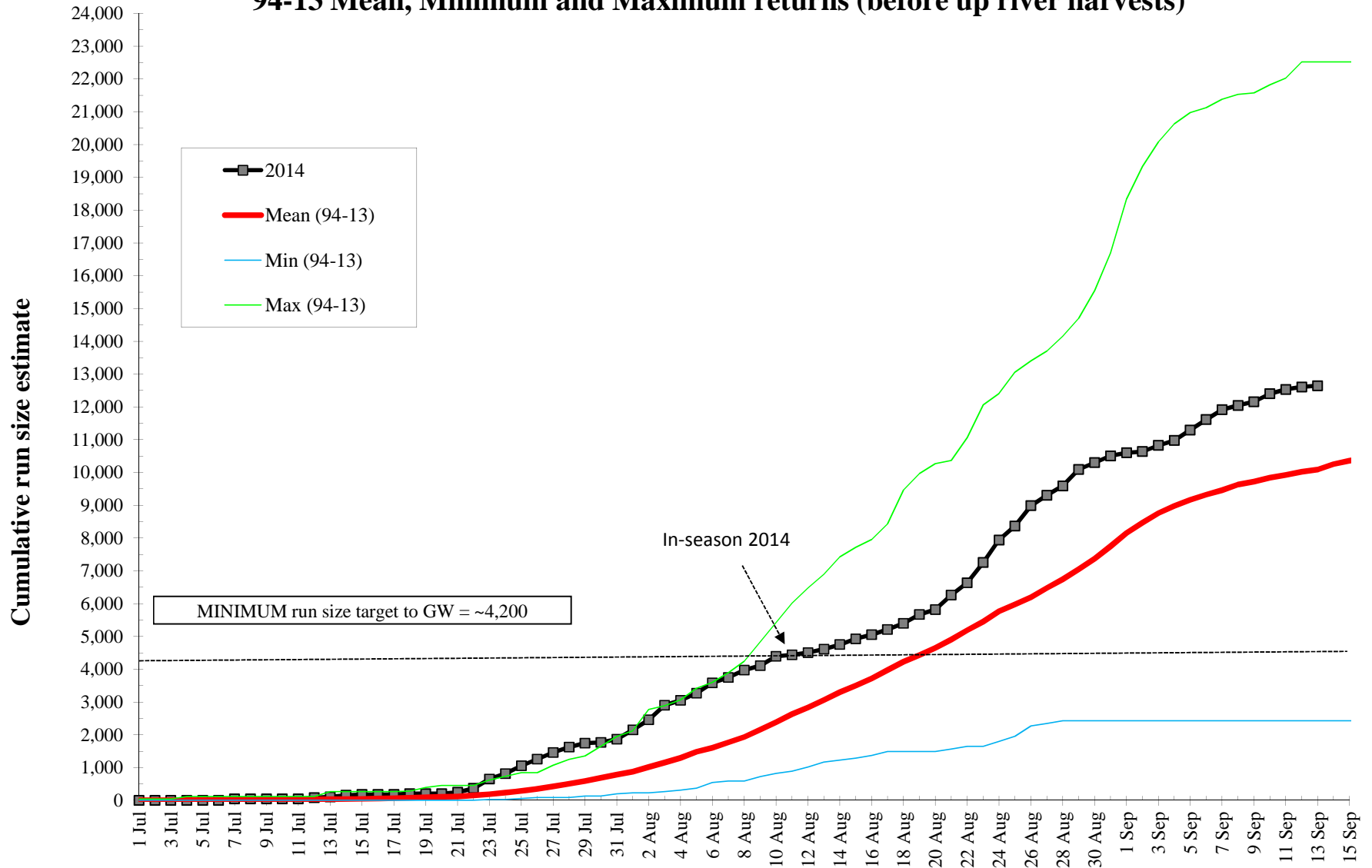
Cumulative Nass Adult Coho Run Size to Gitwinksihlkw 2014 vs. 94-13 Mean, Minimum and Maximum returns (before up river harvests)



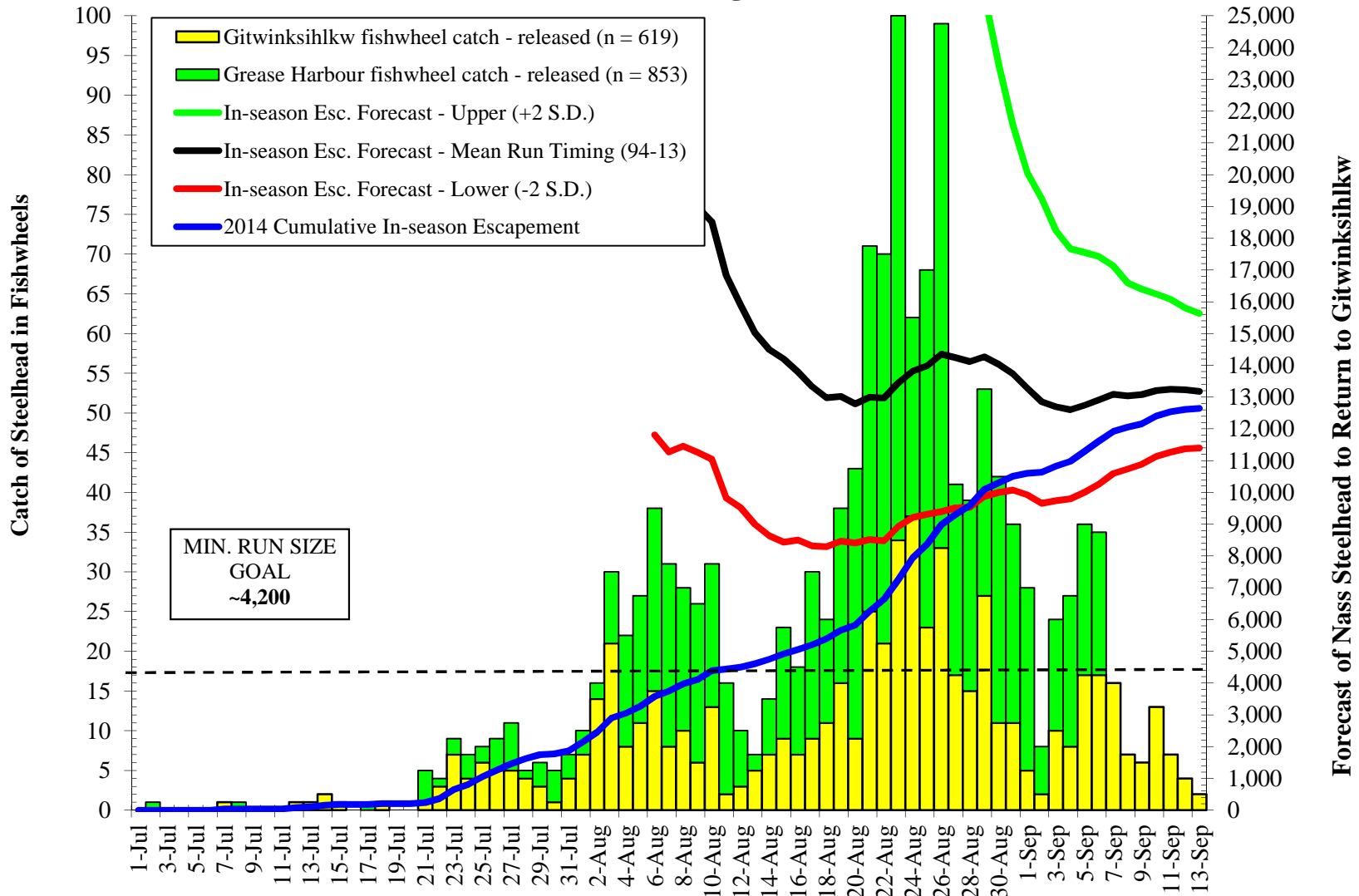
Nass Coho (≥ 40 cm NFL) Forecasts to Gitwinksihlkw Fishwheels 2014 (Mean Run timing - 1994-13)



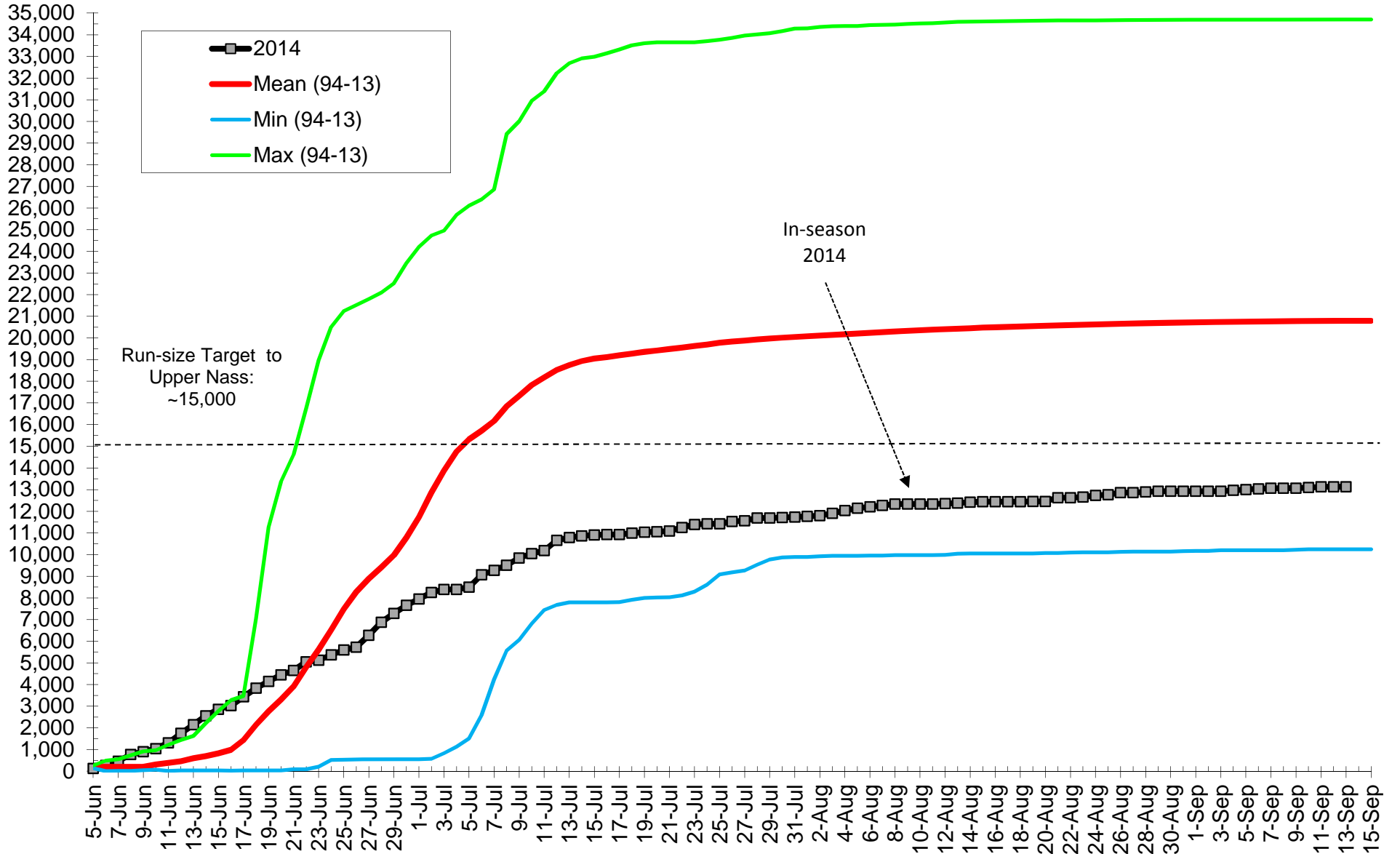
Cumulative Nass Adult Summer-run Steelhead Return to Gitwinksihlkw 2014 vs. 94-13 Mean, Minimum and Maximum returns (before up river harvests)



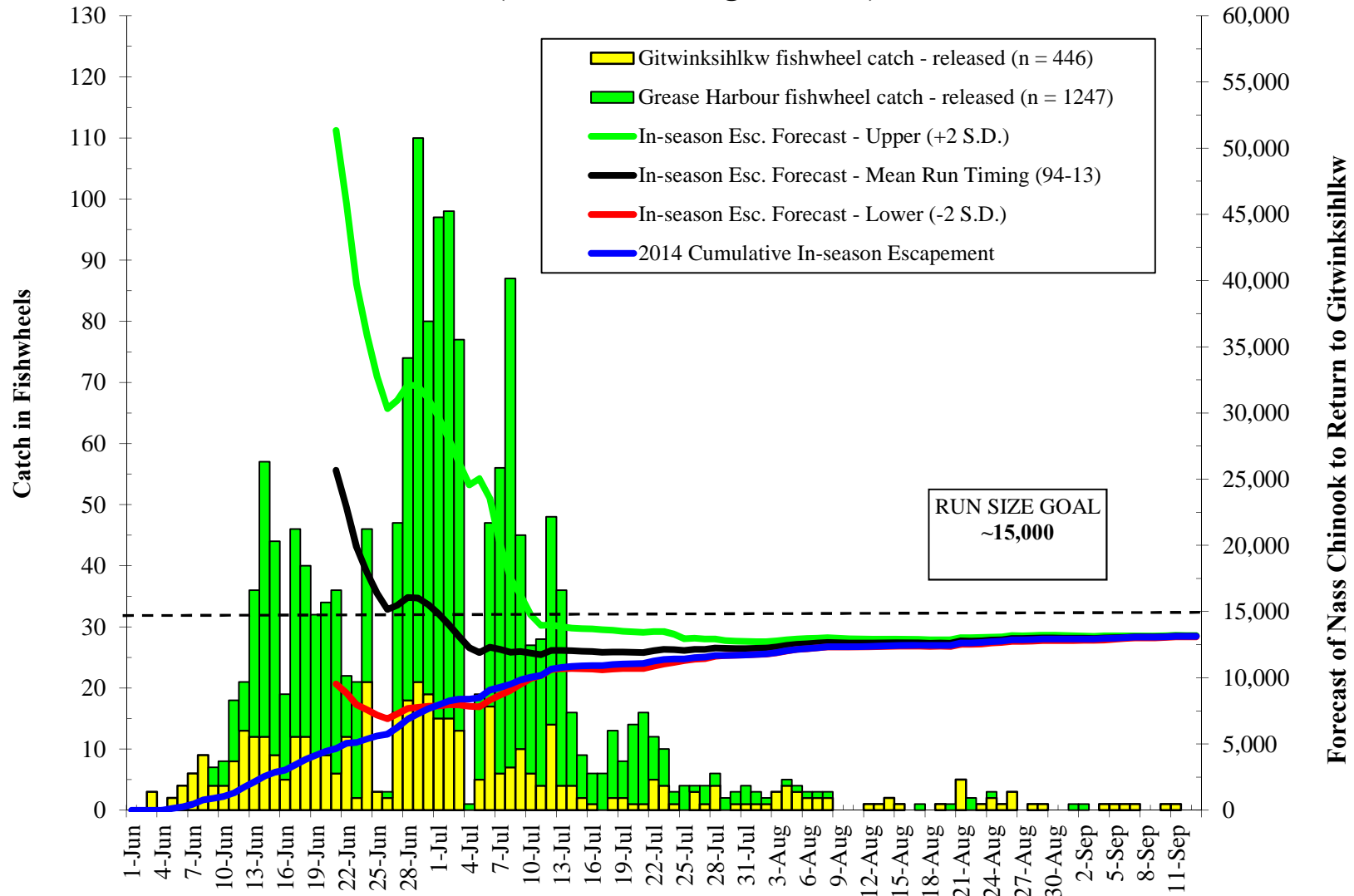
Nass Summer Run Steelhead Forecasts to Gitwinksihlkw Fishwheels 2014 (Mean Run timing - 1994-13)



Cumulative Nass Adult Chinook Run Size to Gitwinksihlkw 2014 vs 94-13 Mean, Minimum and Maximum returns (before up river harvests)



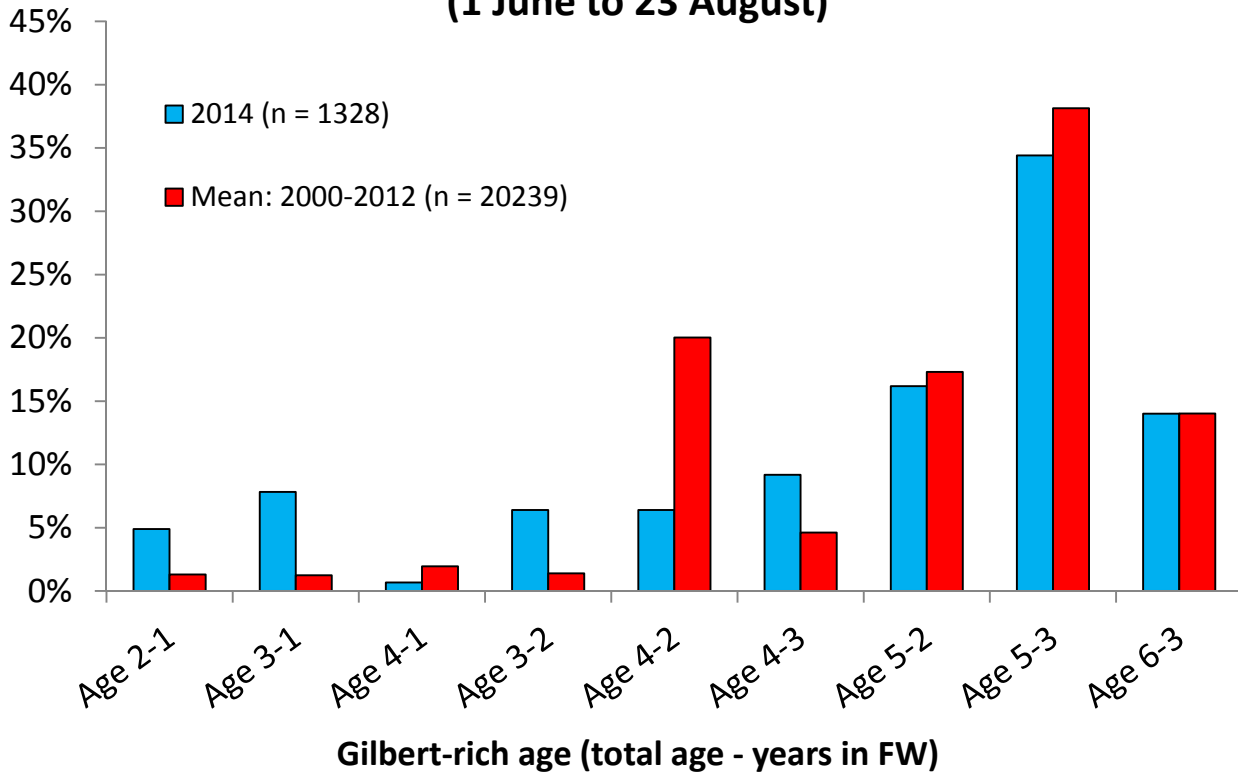
Nass Chinook (≥ 50 cm NFL) Forecasts to Gitwinksihlkw Fishwheels 2014 (Mean Run timing - 1994-13)



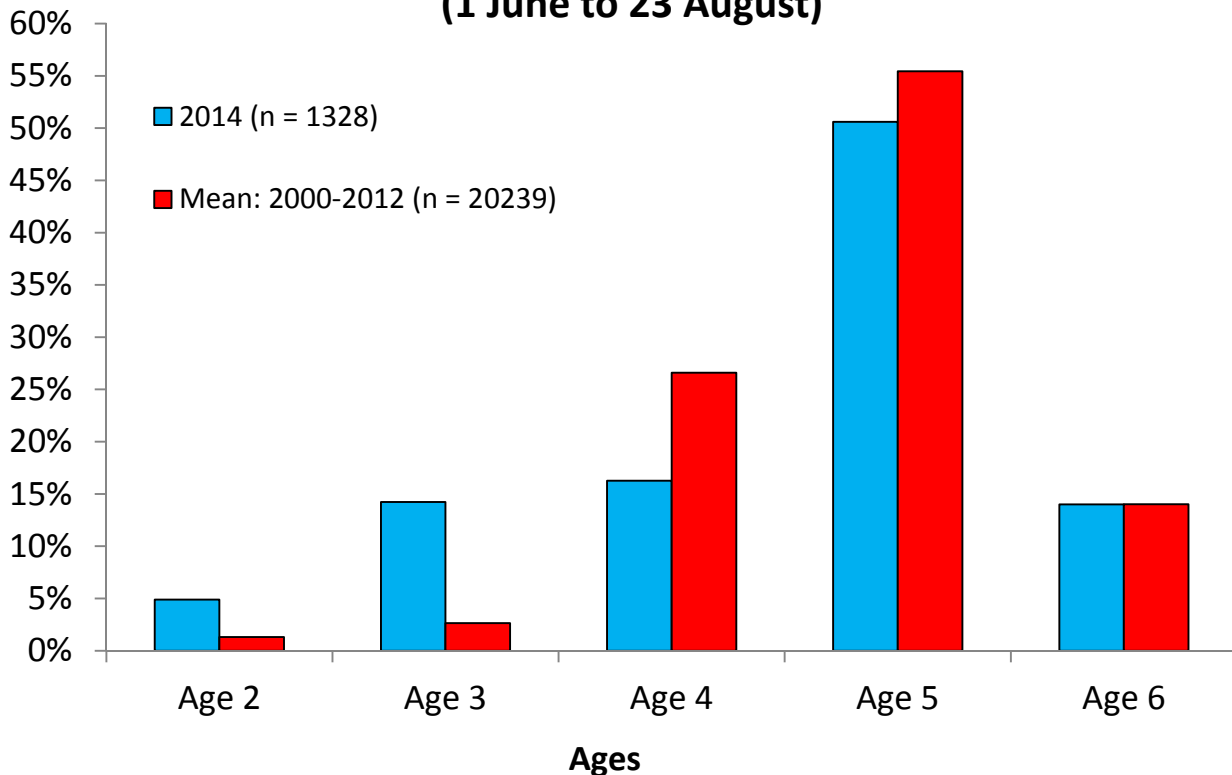
2014 Nass Fishwheel Catches

	GW		GW Total	GH				GH Total	Grand Total
Data	FW1	FW2		FW3	FW4	FW5	FW6		
Chin-adult catch	103	343	446	324	113	497	313	1,247	1,693
Chin-tagged	90	314	404	292	89	426	269	1,076	1,480
Chin-recaps	8	10	18	25	27	92	56	200	218
Chin-Jacks	79	156	235	121	114	254	230	719	954
Sum of CH Harv	0	0	0	0	0	0	0	0	0
Sockeye-adult catch	3,852	7,678	11,530	7,202	2,183	11,393	6,037	26,815	38,345
Sockeye-tagged	3,000	4,950	7,950	0	0	0	0	0	7,950
Sockeye-recaps	201	171	372	219	87	425	217	948	1320
Sockeye_jacks	524	1481	2005	581	676	1525	929	3711	5716
Sum of Sk Harv	0	0	0	1241	383	2103	1189	4916	4916
Coho-adult catch	3,393	3,265	6,658	1,660	1,416	4,990	2,413	10,479	17,137
Coho-tagged	2,531	2,553	5,084	0	0	0	0	0	5,084
Coho-recaps	232	219	451	67	89	295	129	580	1031
Coho-jack	21	40	61	56	42	149	109	356	417
Sum of CO Harv	0	0	0	527	823	1666	1142	4158	4158
Steel-adult catch	196	423	619	168	82	437	166	853	1,472
Steel-Adipose marked	190	386	576	150	77	373	148	748	1324
Steel-unmarked	6	37	43	18	5	64	18	105	148
Steel-recap-total	21	39	60	37	14	102	34	187	247
Pacific Lamprey-catch	56	124	180	53	32	180	184	449	629
Lamprey-tagged	47	99	146	20	22	98	140	280	426
Lamprey-released	9	25	34	33	10	82	44	169	203
Lamprey-recaps	0	0	0	1	1	5	10	17	17
River Lamprey	0	1	1	0	0	3	0	3	4
Pink-adult-catch	6717	10642	17359	2115	640	3119	805	6679	24038
Chum-adult-catch	32	32	64	9	1	3	6	19	83
Chum-tagged	29	33	62	9	1	3	2	15	77
Chum-punched	0	0	0	0	0	0	0	0	0
Chum-recaps	1	3	4	1	0	1	0	2	6
Dolly Varden	53	143	196	2	1	10	4	17	213
Pike Minnow	1	8	9	27	3	40	18	88	97
Rainbow Trout	23	19	42	10	2	10	8	30	72
Whitefish sp.	5	18	23	7	5	19	14	45	68
Peamouth Chub	0	1	1	11	1	19	10	41	42
Sculpin	5	1	6	0	1	26	0	27	33
Sucker	1	0	1	5	0	6	0	11	12
Red-Side Shiner	0	2	2	3	0	3	1	7	9
Cutthroat sp.	0	0	0	0	0	0	0	0	0
Sum of chin_smolt	10	2	12	0	1	1	5	7	19
Sum of co_smolt	46	22	68	4	4	13	4	25	93
Sum of sk_smolt	16	0	16	0	2	1	0	3	19

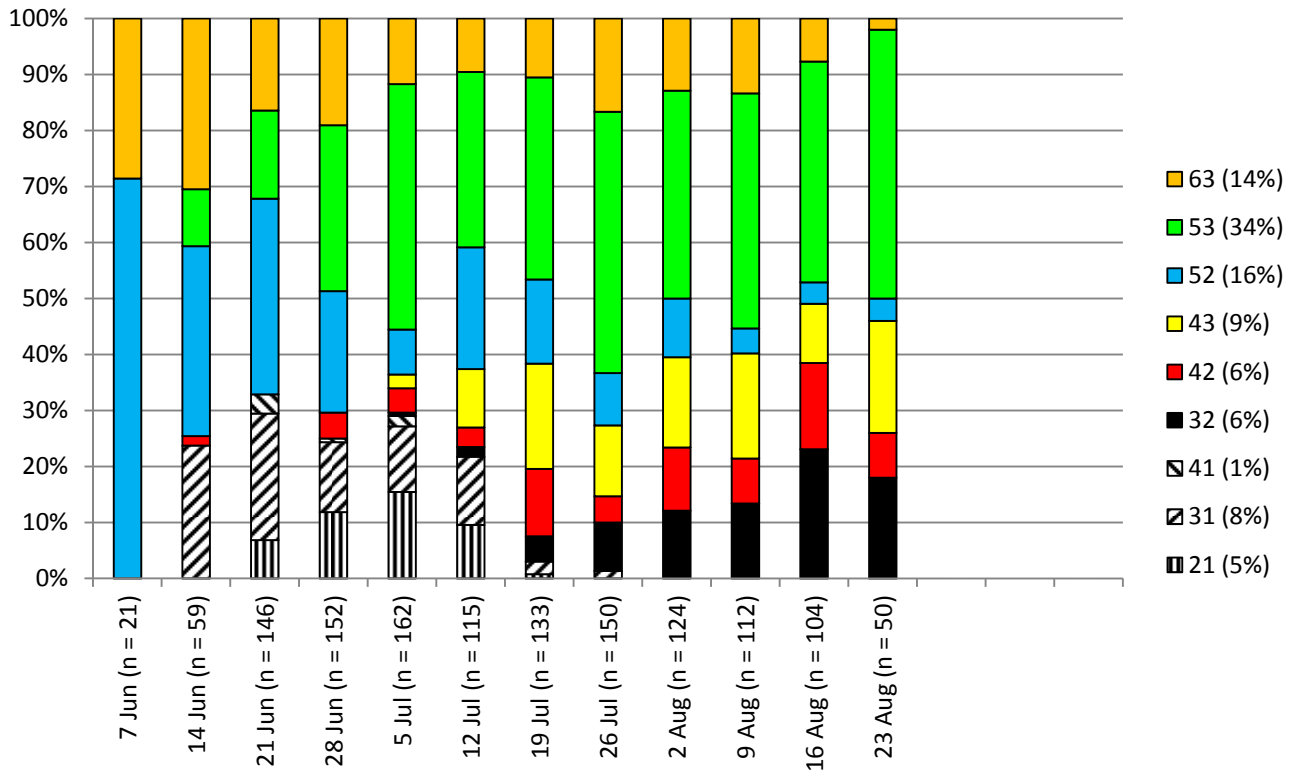
NASS SOCKEYE DETAILED AGES AT GW FISHWHEELS (1 June to 23 August)



NASS SOCKEYE TOTAL AGES AT GW FISHWHEELS (1 June to 23 August)



NASS SOCKEYE WEEKLY AGES AT GW FISHWHEELS 2014



NASS SOCKEYE WEEKLY MEAN AGES AT GW FISHWHEELS (2000-2012)

