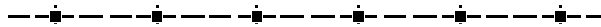




# Lower Fraser River Fishwheel Operations 2011

Prepared by LGL Limited  
for  
Tsawwassen and Matsqui First Nations  
& Pacific Salmon Foundation



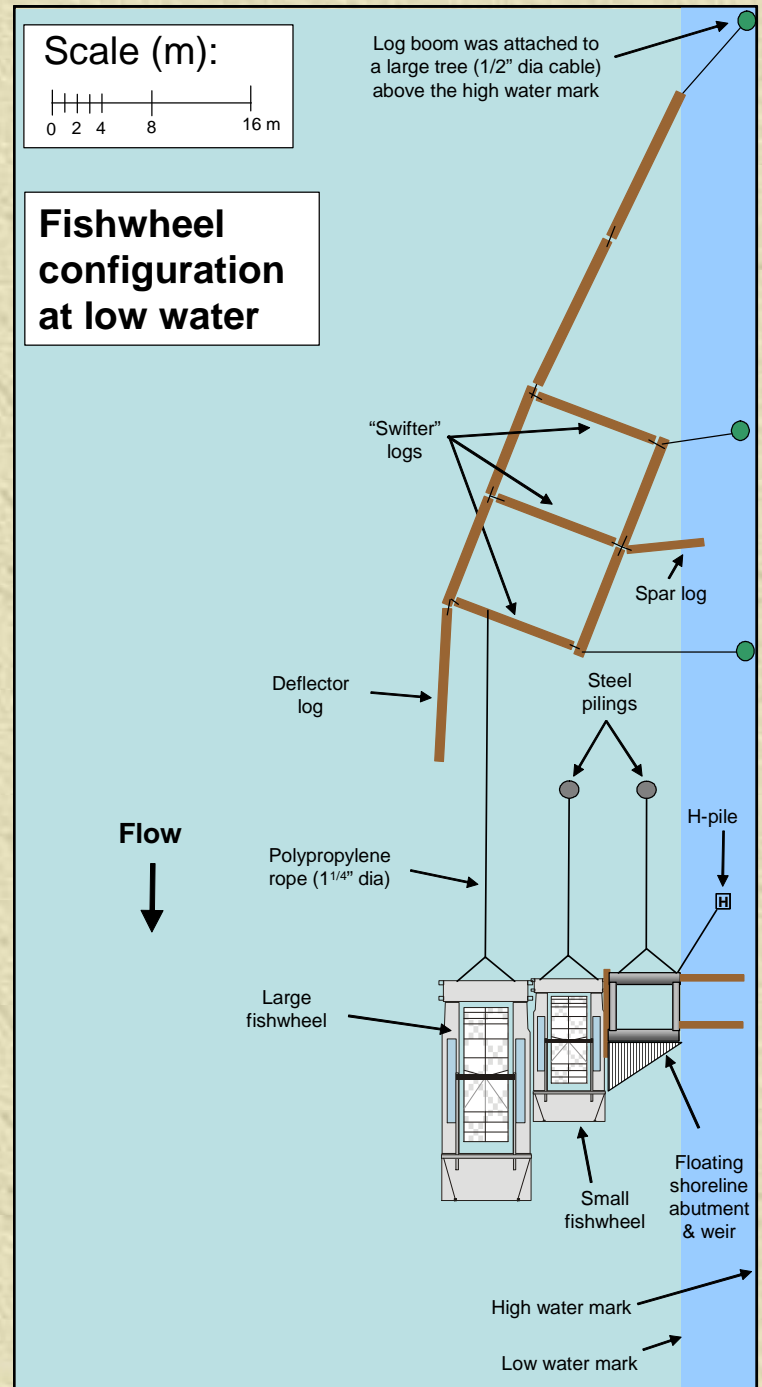
# Main Study Objectives for 2011

- ✦ Operate Crescent Island fishwheels for near-shore species composition
- ✦ Conduct a selective harvest of pink salmon using fishwheels through a collaborative agreements involving:
  - the Tsawwassen and Matsqui First Nations,
  - the Tsawwassen Treaty allocation for pink salmon,
  - support from the PSF and LGL; and
  - harvesting permits from DFO

# Fishwheels at Crescent Site similar to 2009



5/10/2012



# Fishwheel Harvesting Setup



5/10/2012

Pinks slide directly into totes  
bycatch removed within seconds of capture



5/10/2012

5

# Full totes ready for transport



5/10/2012

6

# Totes lifted onto shoreline barge



5/10/2012

# Example of high quality pinks.

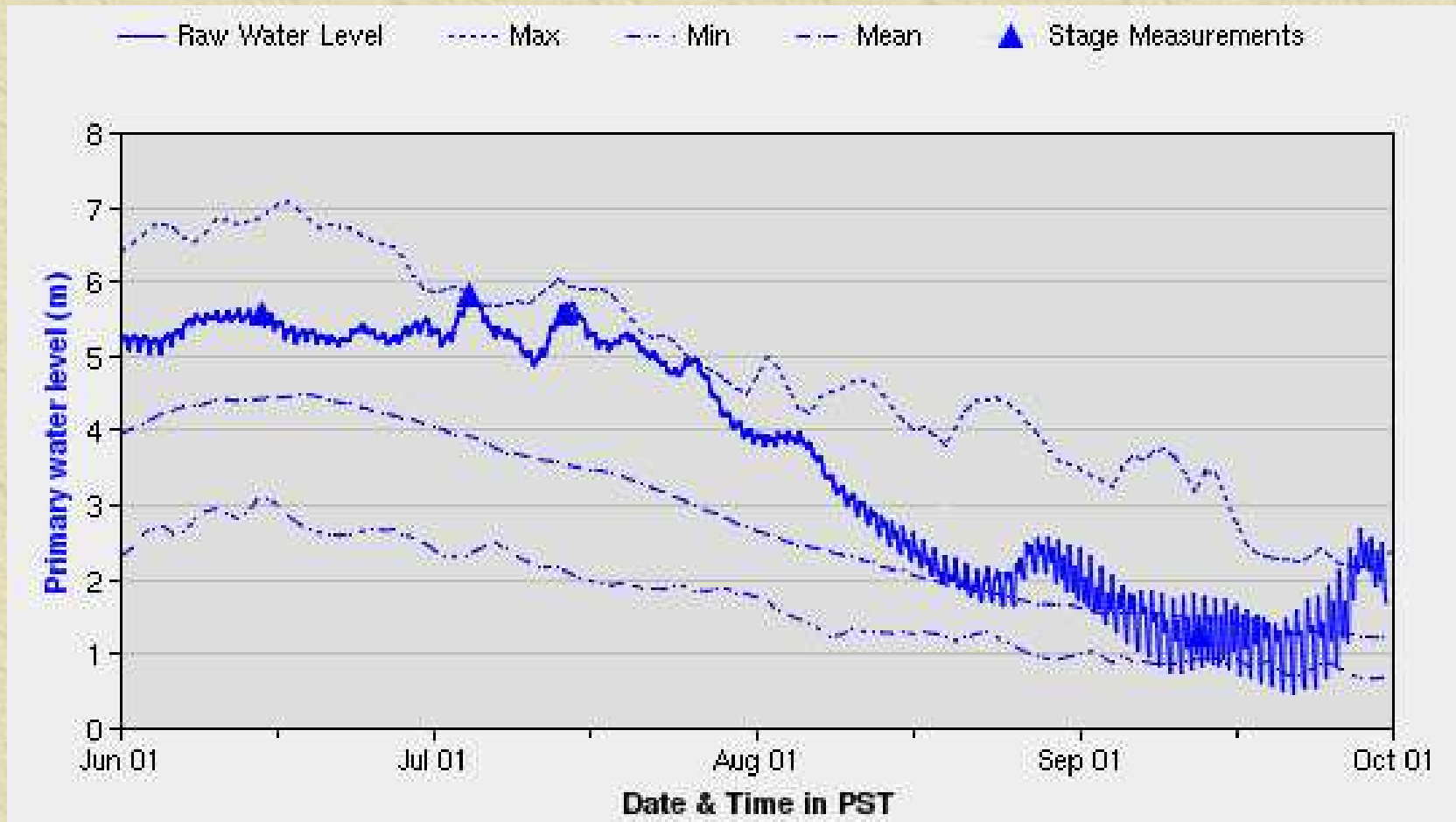


5/10/2012



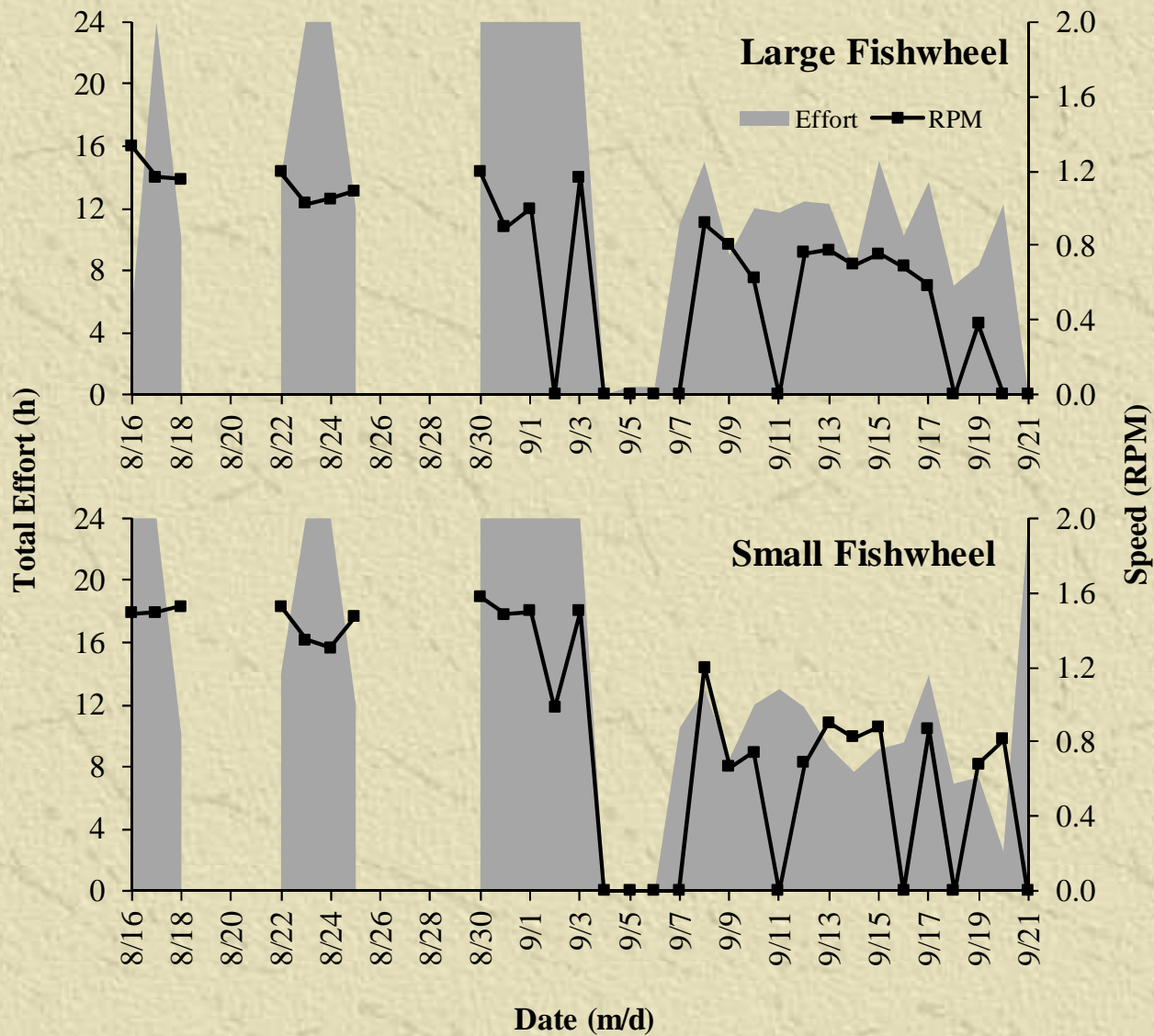
# Fraser River Water Levels 2011

## - Mission hydrometric station



Data from Environment Canada web site

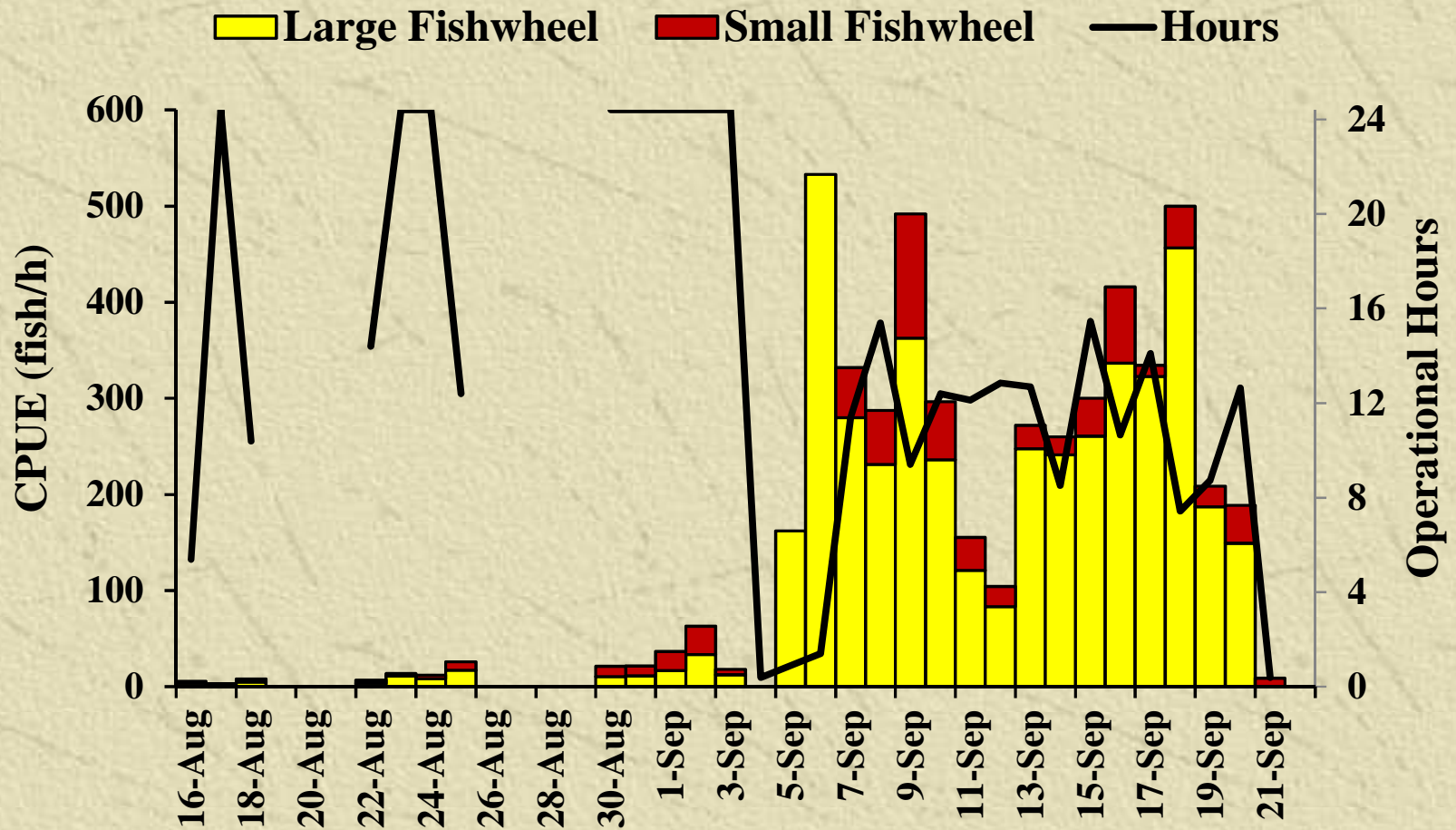
# Daily Fishwheel Effort & Speed (RPM)



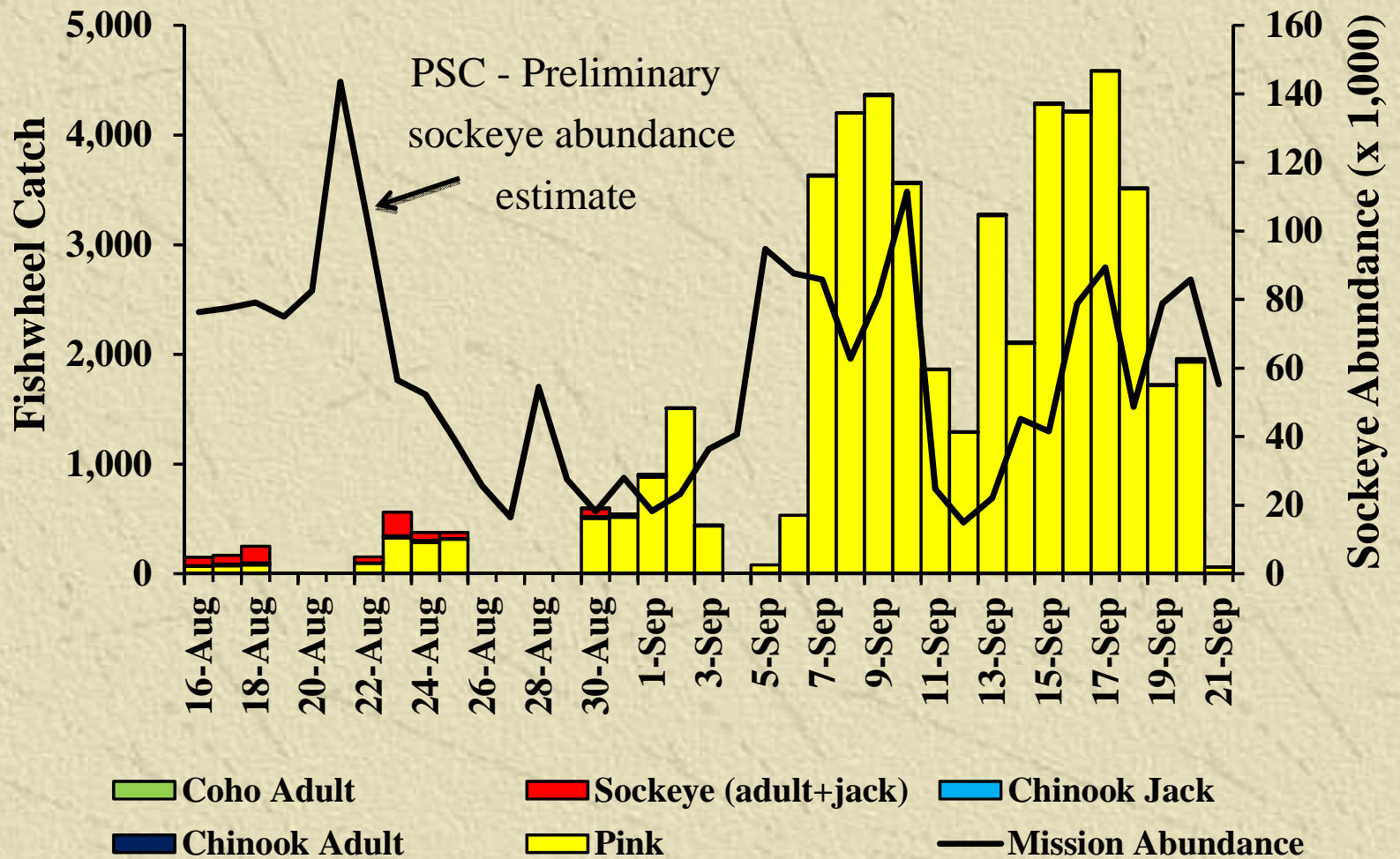
# Fishwheel Catch Summary

<b>Species</b>	<b>Adults</b>	<b>Jacks</b>	<b>Total</b>	<b>Percent</b>
<b>Pink</b>	<b>50,270</b>		<b>50,270</b>	<b>97.9%</b>
<b>Sockeye</b>	<b>820</b>	<b>7</b>	<b>827</b>	<b>1.6%</b>
<b>Chinook</b>	<b>87</b>	<b>79</b>	<b>166</b>	<b>0.3%</b>
<b>Coho</b>	<b>65</b>	<b>7</b>	<b>72</b>	<b>0.1%</b>
<b>Steelhead</b>	<b>20</b>		<b>20</b>	<b>0.0%</b>
<b>Sturgeon</b>	<b>4</b>		<b>4</b>	<b>0.0%</b>
<b>Total</b>	<b>51,266</b>	<b>93</b>	<b>51,359</b>	<b>100.0%</b>

# Fishwheel CPUE - Pink Salmon 2011

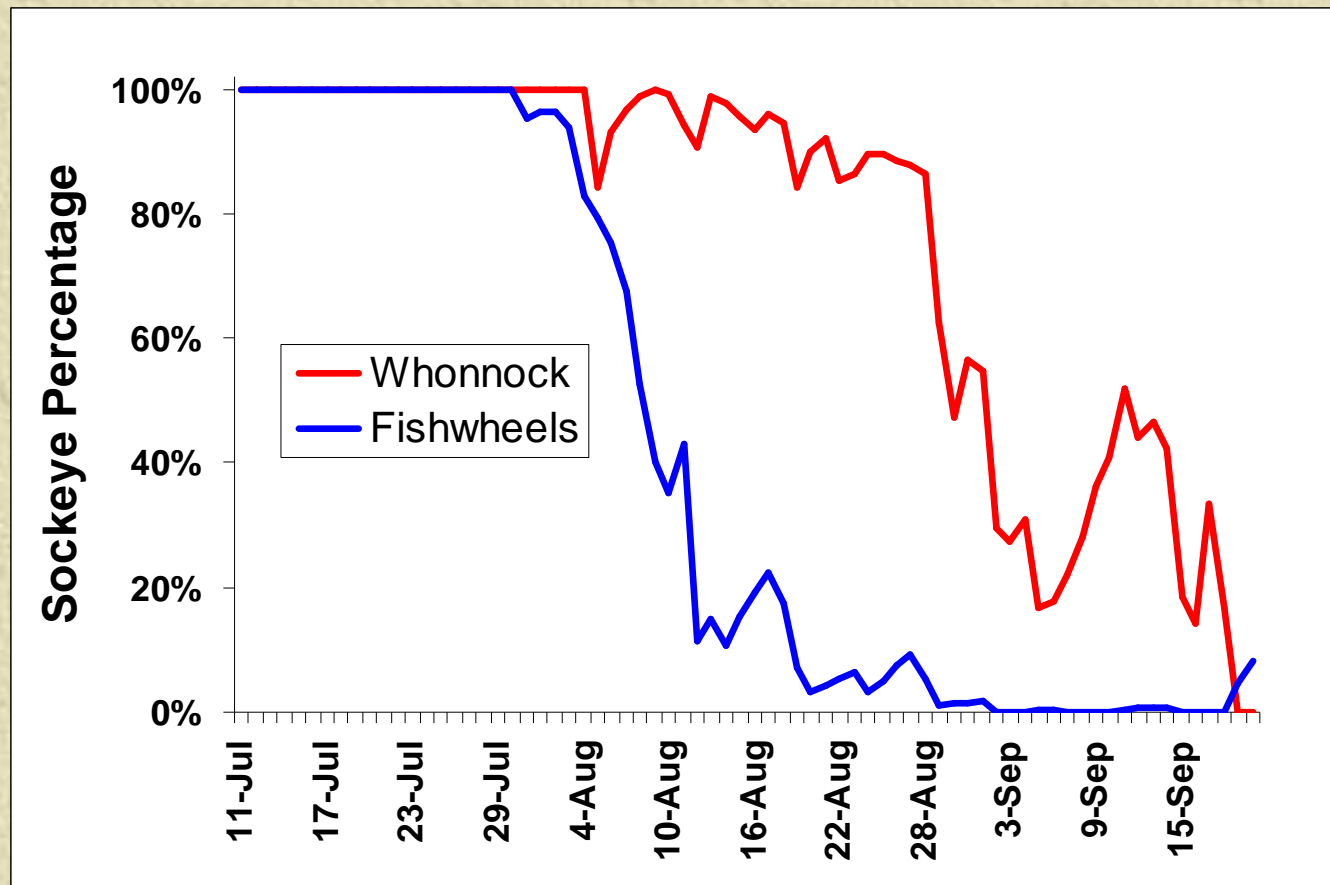


# Fishwheel Catch by Species 2011

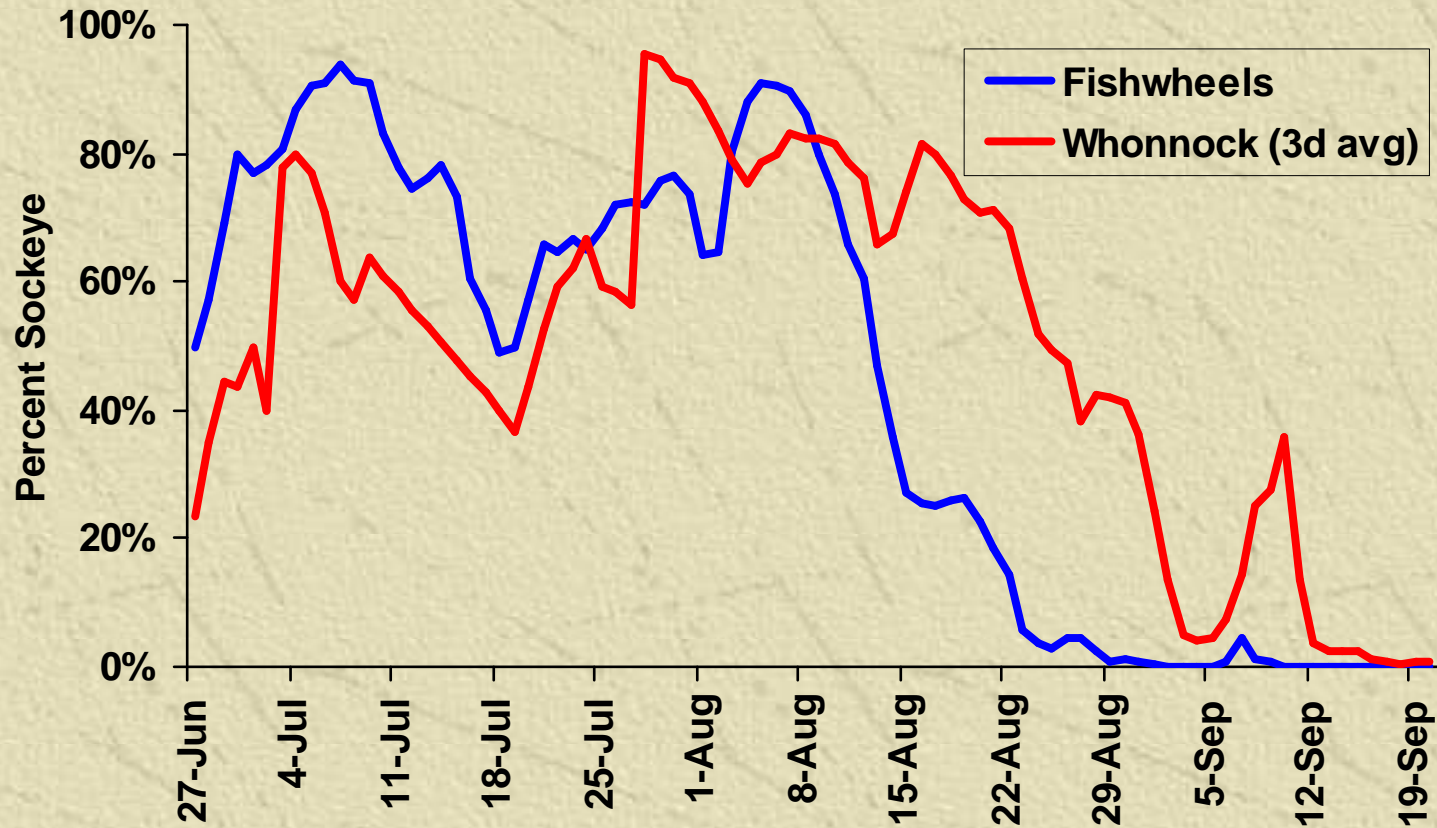


# Species Composition 2007

- ✦ Mission fishwheels and Whonnock gillnet test fishery provided very different SC estimates in 2007

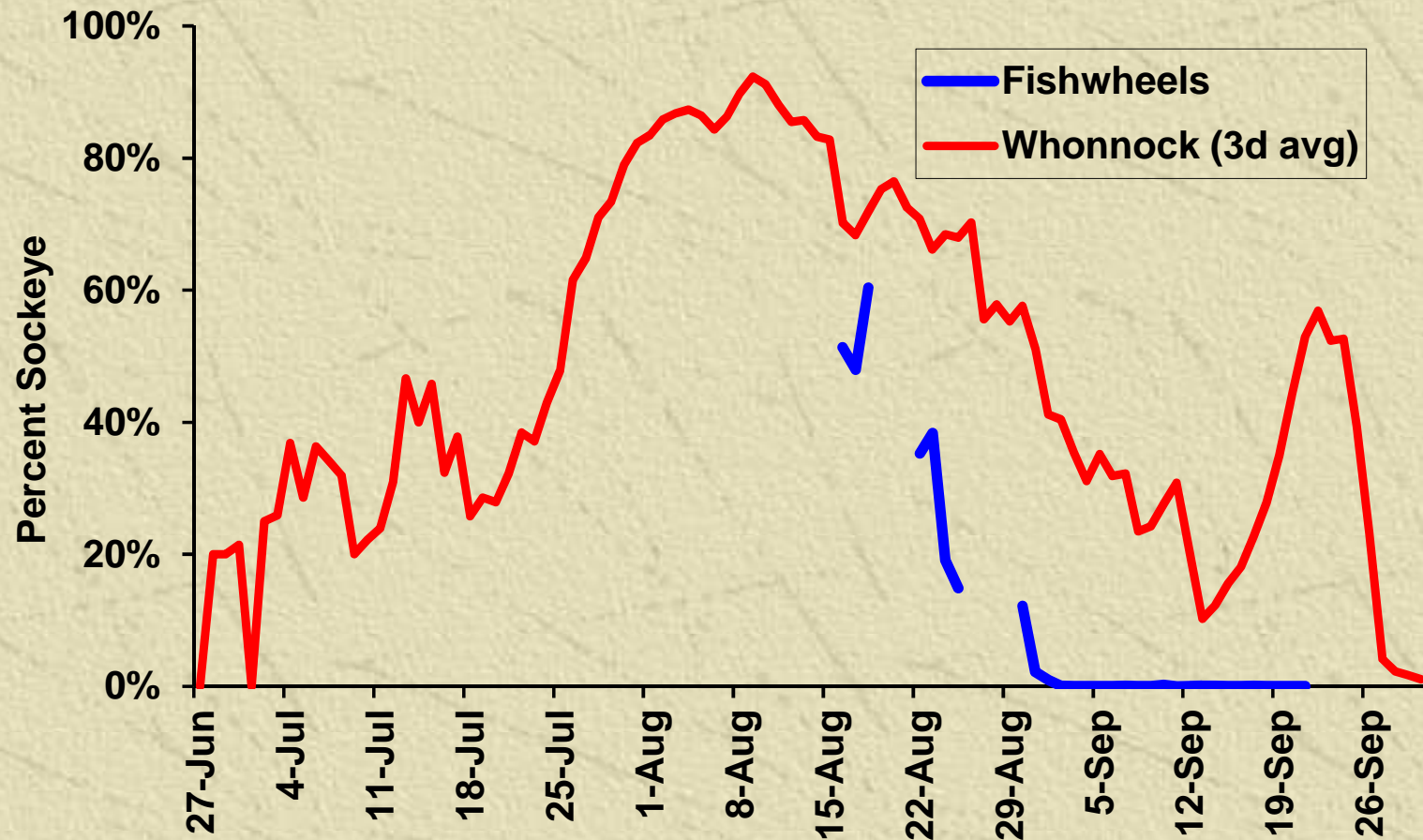


# SC differences again in 2009



# Major SC differences in 2011

Limited operations – no DFO or PSC funding for fishwheels





# Fishwheel Summary

- Stock assessment operations (Aug 15 – Sep 6)
  - 3-5 days/week (12-24 hrs/day)
- Pink salmon harvest operations (Sep 7-20)
  - 44,447 pink salmon harvested
  - 98-100% pink salmon
  - 100-900 pinks/hr (7-15 hrs/day)
  - All bycatch released in excellent condition
- Daily Species Composition Estimates
  - Substantial differences between Whonnock and Fishwheel SC, as observed in 2009.

## Next steps

- Post-season evaluation of alternative estimates of species composition for the Mission hydroacoustic counts
- Combine spatially stratified hydroacoustic counts with near-shore and off-shore SC estimates
- Implement plans to reduce harvesting and monitoring costs for any future fishwheel pink salmon harvest operations