



Oregon Fish and Wildlife Commission

10 February 2017

Exhibit C

Lower Columbia River White Sturgeon Population Status Update

Tucker Jones

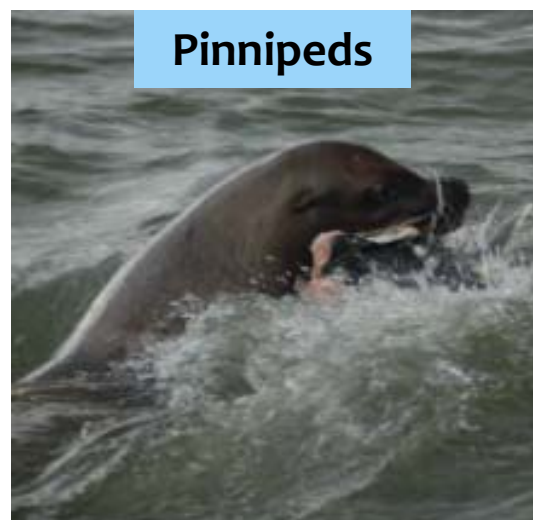
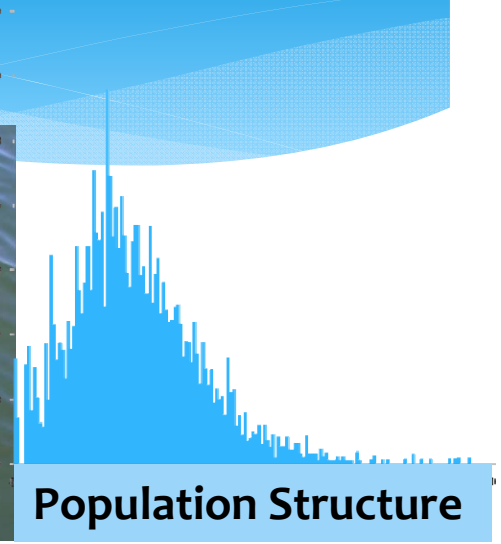
Ocean Salmon and Columbia River Program Manager

Today's Topics

- * Overview of long-term population metrics
- * 2016 stock assessment results and current population status
- * Status of lower Columbia River white sturgeon fisheries



Metrics and Indicators



Metrics and Indicators

Lower Columbia River and Oregon Coast White Sturgeon Conservation Plan

Oregon Department of Fish and Wildlife
Ocean Salmon and Columbia River Program

17330 SE Evelyn Street
Clackamas, Oregon 97015

August 2011

Please direct questions and comments at:

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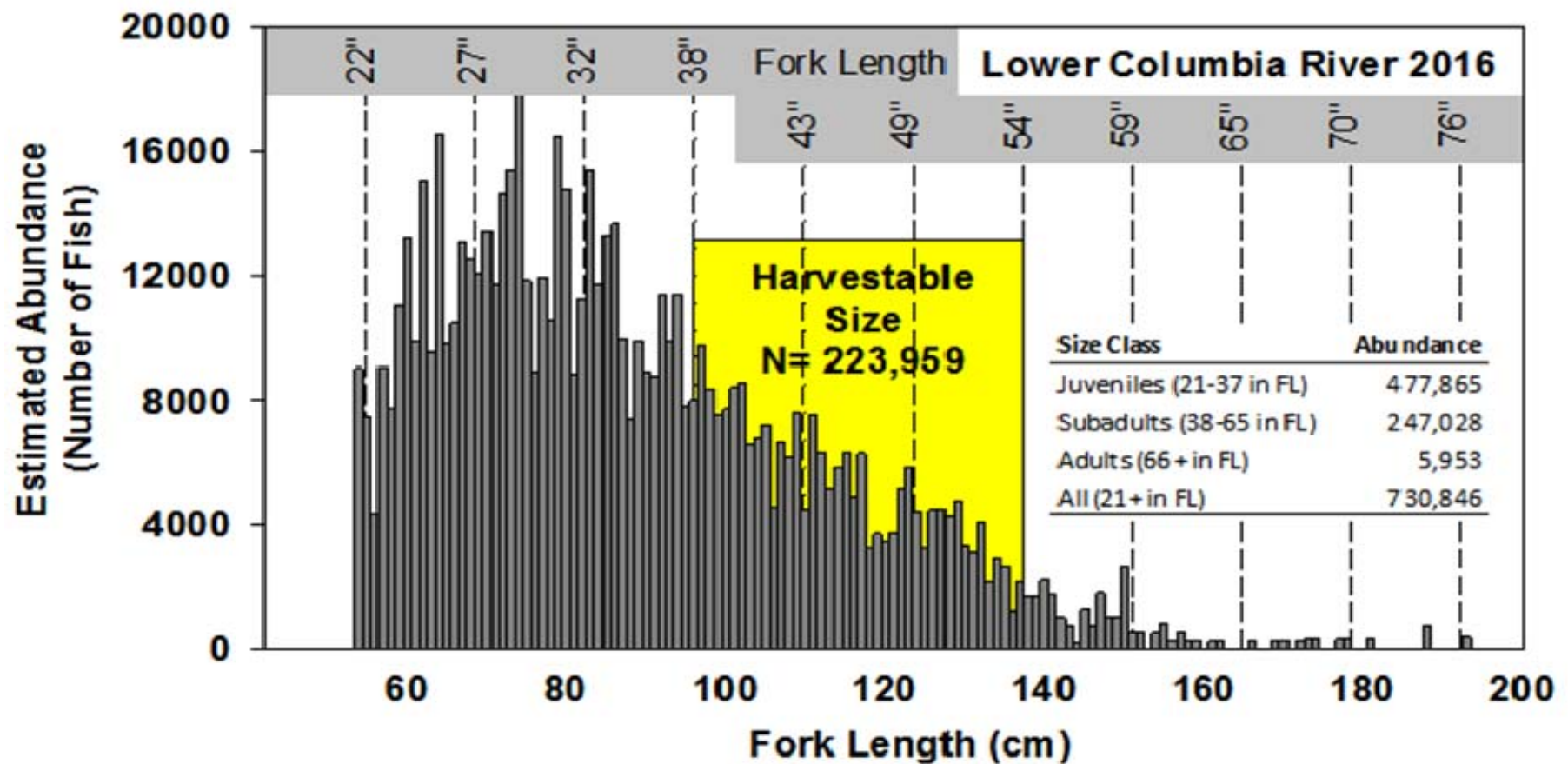
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Lower Columbia River Status



LCR White Sturgeon Abundance

Size Class	\hat{N}	95% Confidence limits
Juveniles (54-95 cm FL)	477,865	252,448 – 703,282
Legal (96-137 cm FL)	223,959	118,314 – 329,604
Over-legals (138-166 cm FL)	23,069	12,187 – 33,951
Adults (167+ cm FL)	5,953	3,145 – 8,762
Total (54 cm +)	730,846	

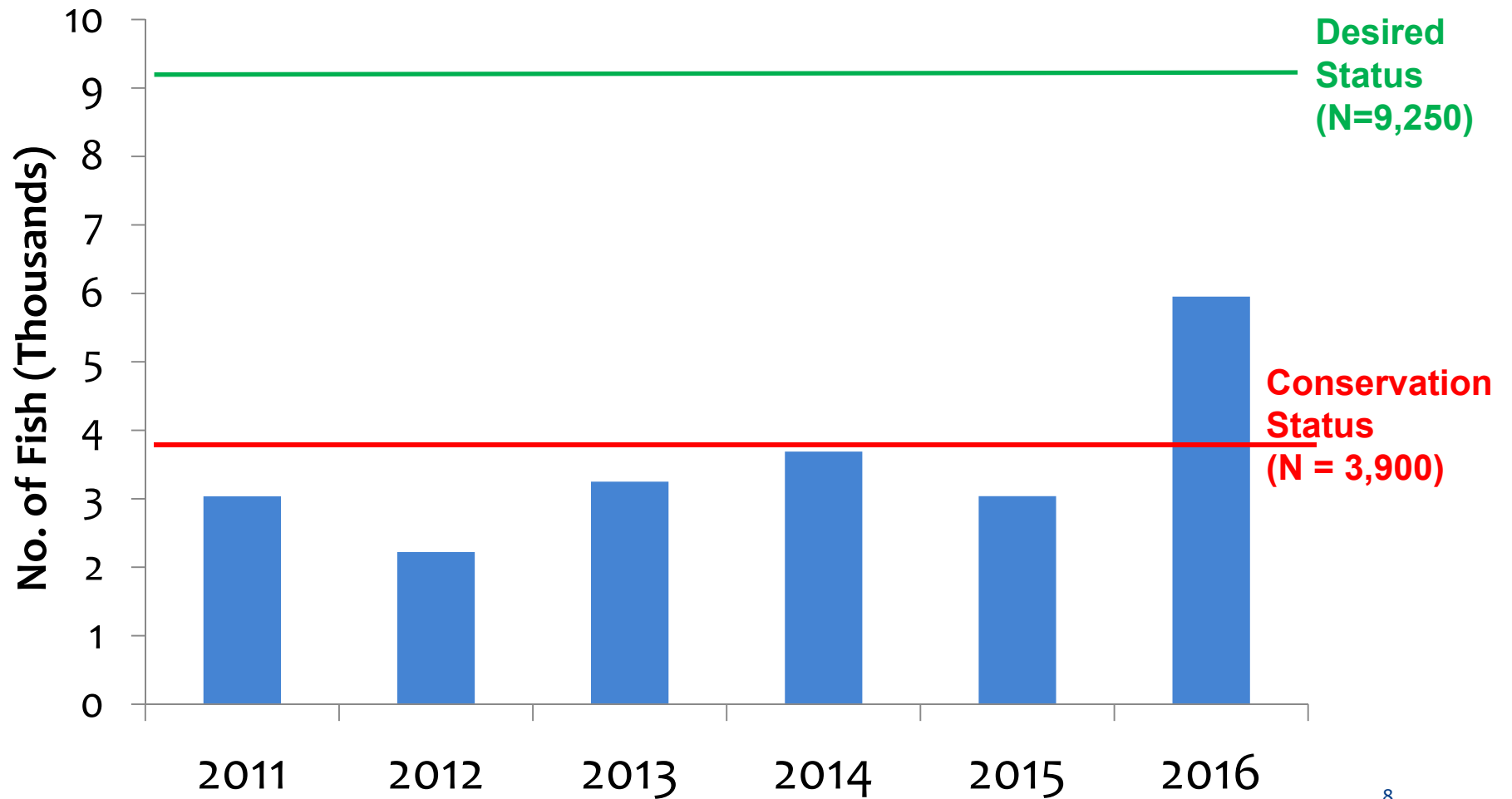
LCR White Sturgeon Abundance

Estimated Legal Abundance (96-137 cm FL)

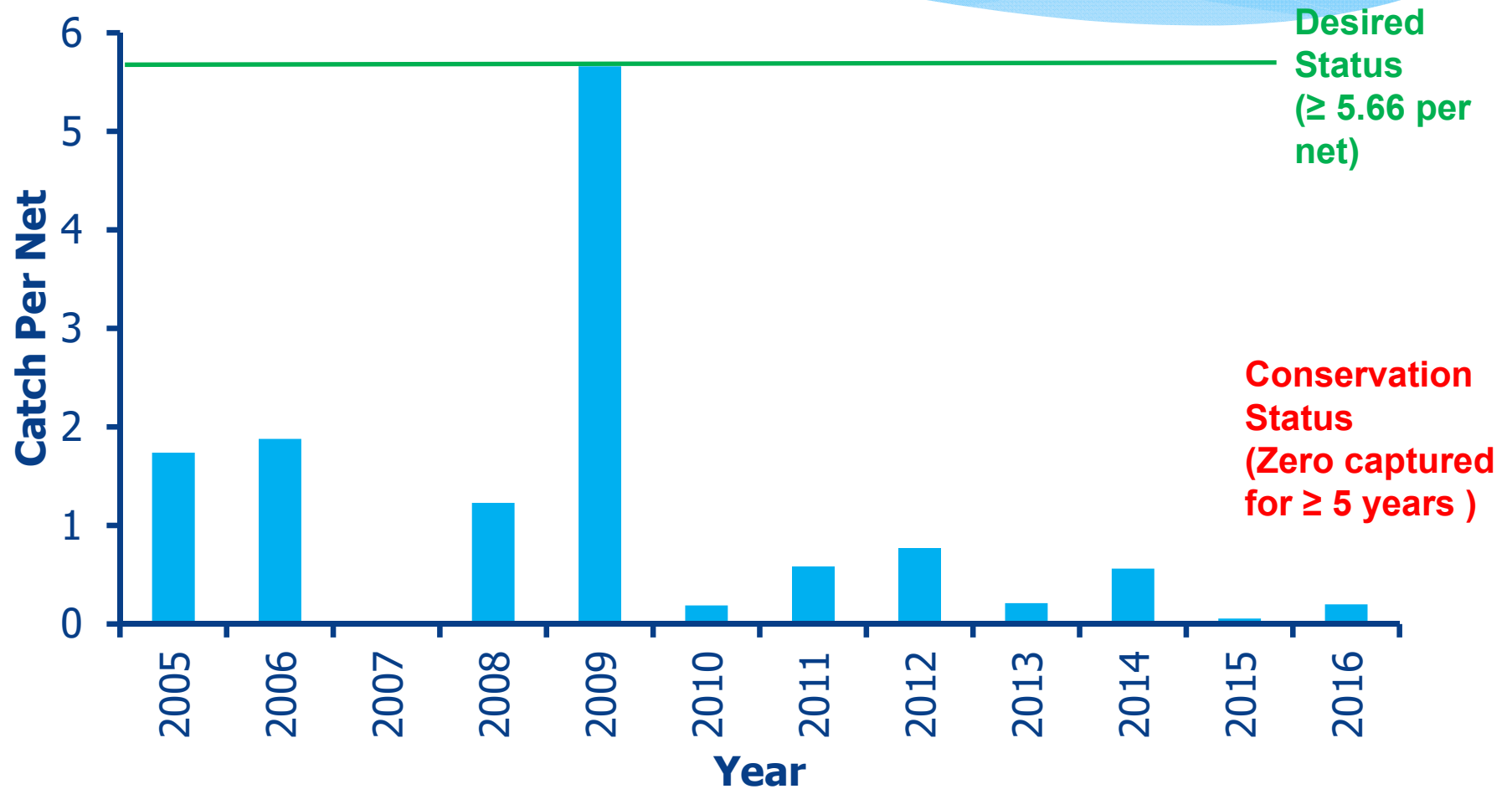
Year	Historic method estimate	Setline method		Harvest guideline
		Estimate	Projection	
2008	101,200	N/A	N/A	40,000
2009	95,000	N/A	N/A	40,000
2010	65,300	100,200	N/A	24,000
2011	72,800	80,500	77,000	17,000
2012	83,400	72,700	65,000	10,400
2013	--	114,200	74,300	10,105
2014	--	130,990 (75,500 – 186,480)	131,700	--
2015	--	143,840 (85,700 – 202,100)	138,200	--
2016	--	223,960 (118,300 – 329,600)	147,100	--
2017	--	--	237,900	--

LCR White Sturgeon Abundance

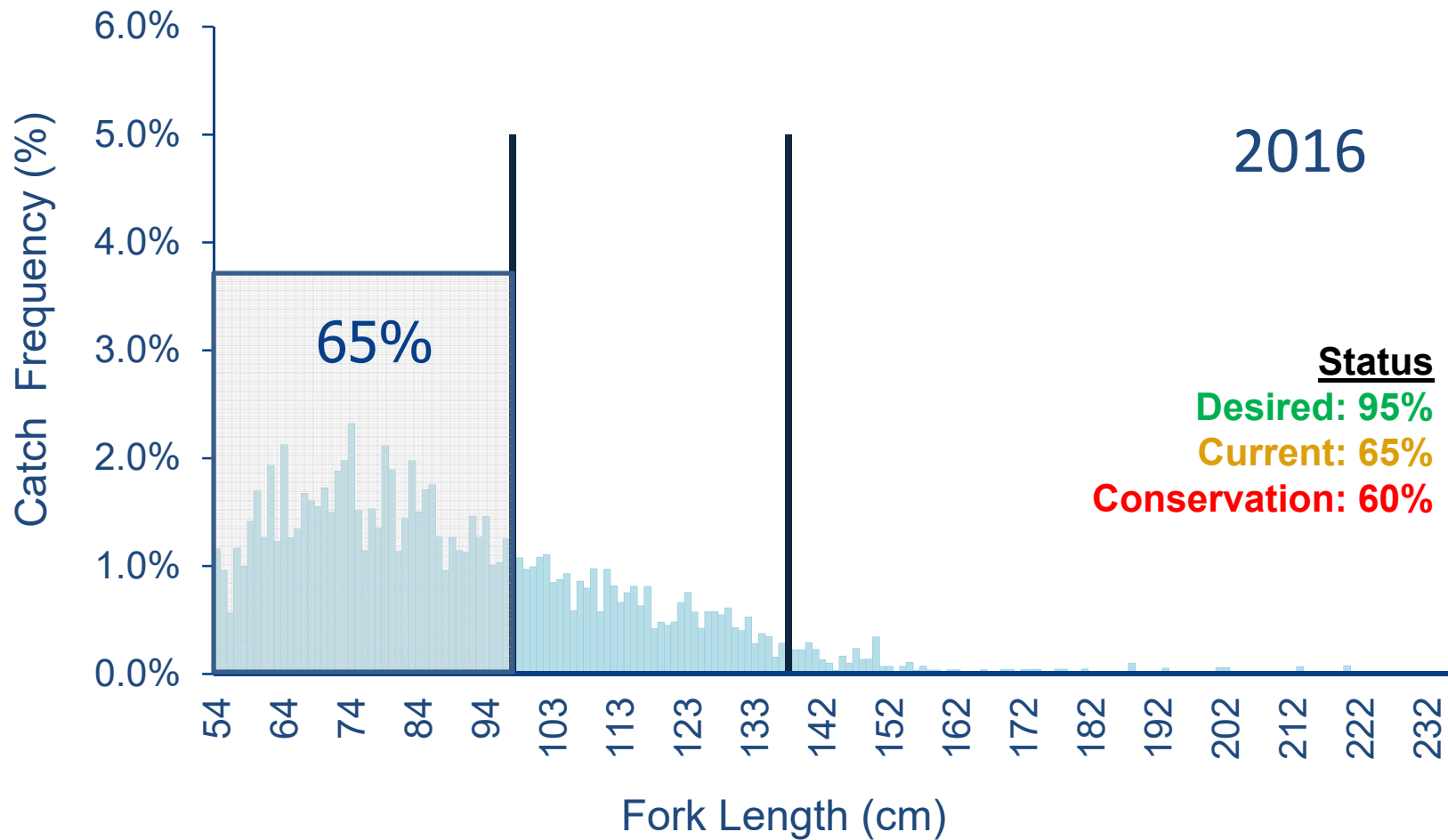
Adult Abundance (167+ cm FL)



LCR White Sturgeon Recruitment



LCR length frequency distribution

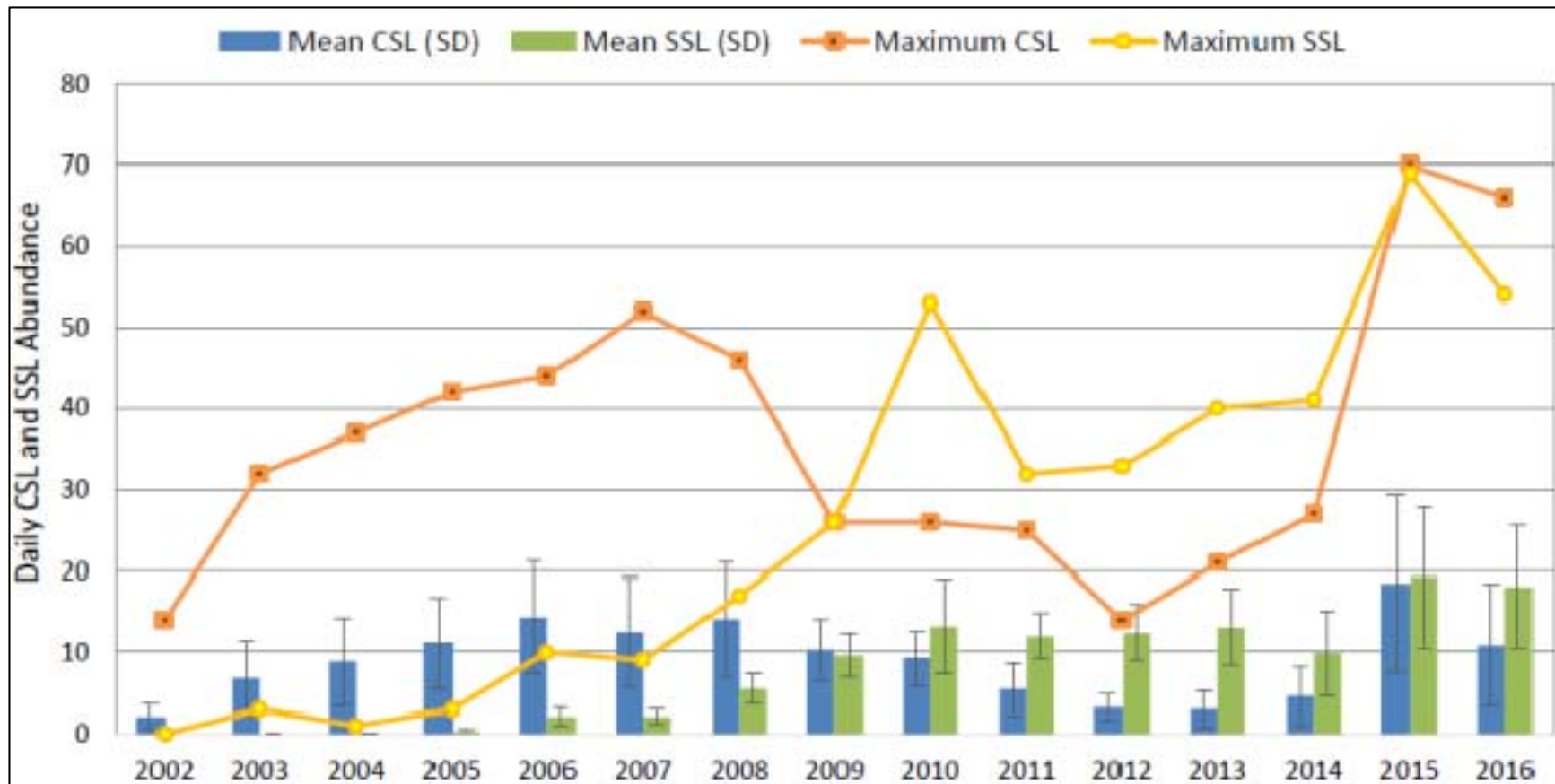


Predation by Sea lions

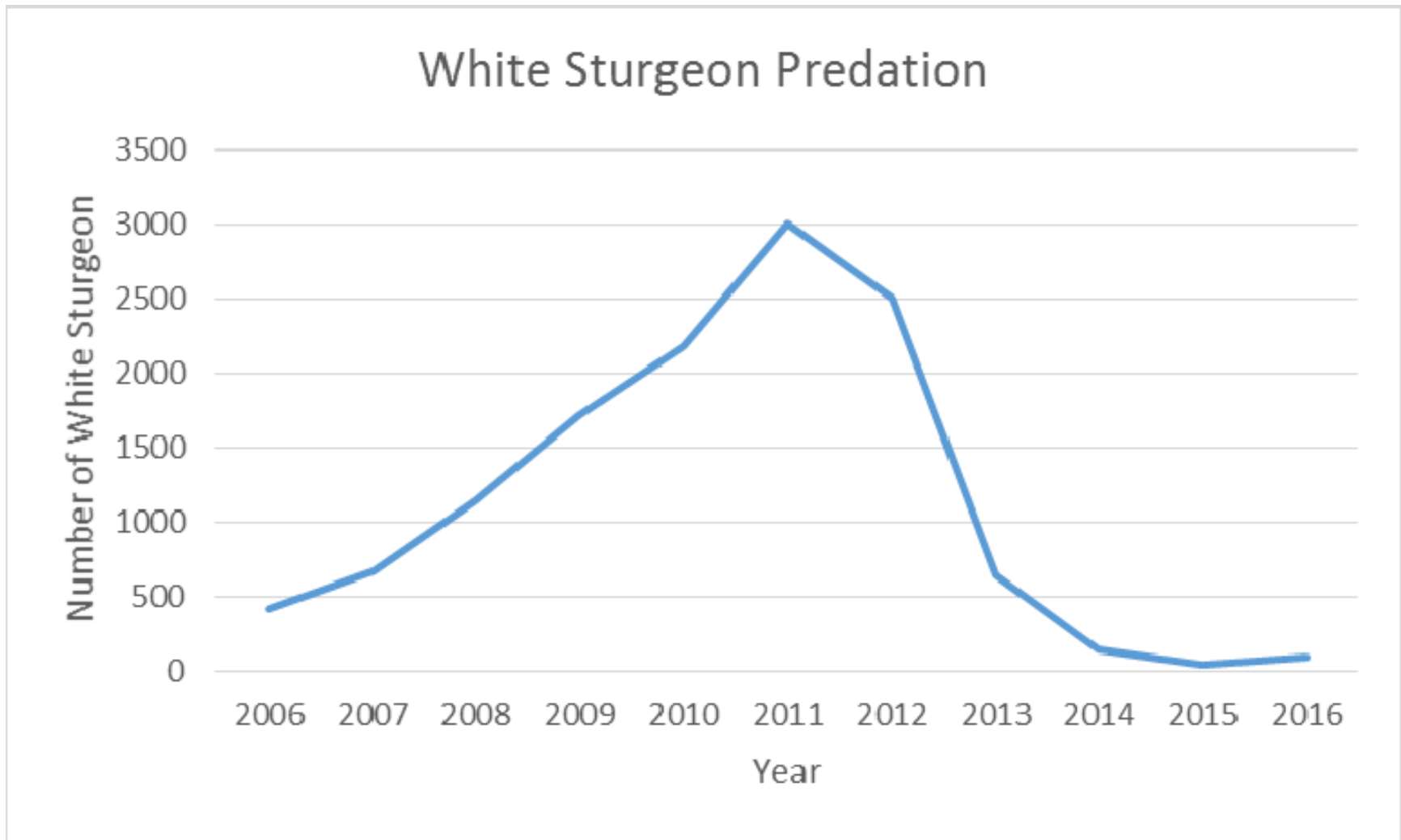


Sea lion predation

- * Sea Lion presence grew and by 2005 a hazing program was initiated
- * With the arrival that year of the larger Steller Sea Lion, sturgeon were being deliberately targeted



Sea lion predation



Sea lion predation

Growing pinniped issue in the Willamette









- * 2014-15: 1-2 Steller sea lions observed at Willamette Falls
- * 2016: 1-2 Steller sea lions observed, 8 sturgeon predation events observed
- * 2017: 1-4 Steller sea lions observed, 19 sturgeon predation events observed (through January 27)

Sport Fisheries Response

Year	Total		May - July Estuary	
	Trips (N)	% Change	Trips (N)	% Change
2013	33,094		16,569	
2014	3,120	-91%	1,620	-90%
2015	3,004	-91%	954	-94%
2016	4,372	-87%	2,380	-86%

Summary

Metric	N	Interpretation	Brief Summary
Legal Abundance	223,930		57% increase from 2015; increasing CPUE trend gillnet & setline tagging efforts.
Adult Abundance	5,950 3-yr Avg 4,230		Adult abundance metric is above conservation status threshold.
Population Structure	~65% Juveniles		Continued low relative abundance of juvenile and sub-legal sized fish.
Recruitment Index	CR: 0.13 WR: 0.48		7th consecutive year LCR white sturgeon production remains low; Willamette is up.
Sea Lion Abundance	UP		High sea lion abundance in the LCR is problematic for white sturgeon populations
Fisheries	2,380 (E) 4,372 (T)		Participation still down from retention fishery levels (2013) but up 46% total and 150% in estuary from 2015 levels.

Conclusions

- * Status of lower Columbia River white sturgeon, while not where we'd like it, is not in danger.
 - * Still more than 500,000 fish
 - * Adult population has been stable over the last five years and not projected to decline
 - * Legal abundance is up and trend is positive and with no retention we are escaping more from harvestable slot every year
 - * Productivity issues, but sturgeon life history strategy guards against short periods of low productivity
 - * Sea lions are problematic
- * Not recommending any changes to fisheries structure at this time



END

Questions/Discussion?