



Oregon Fish and Wildlife Commission

9 February 2018

Exhibit C

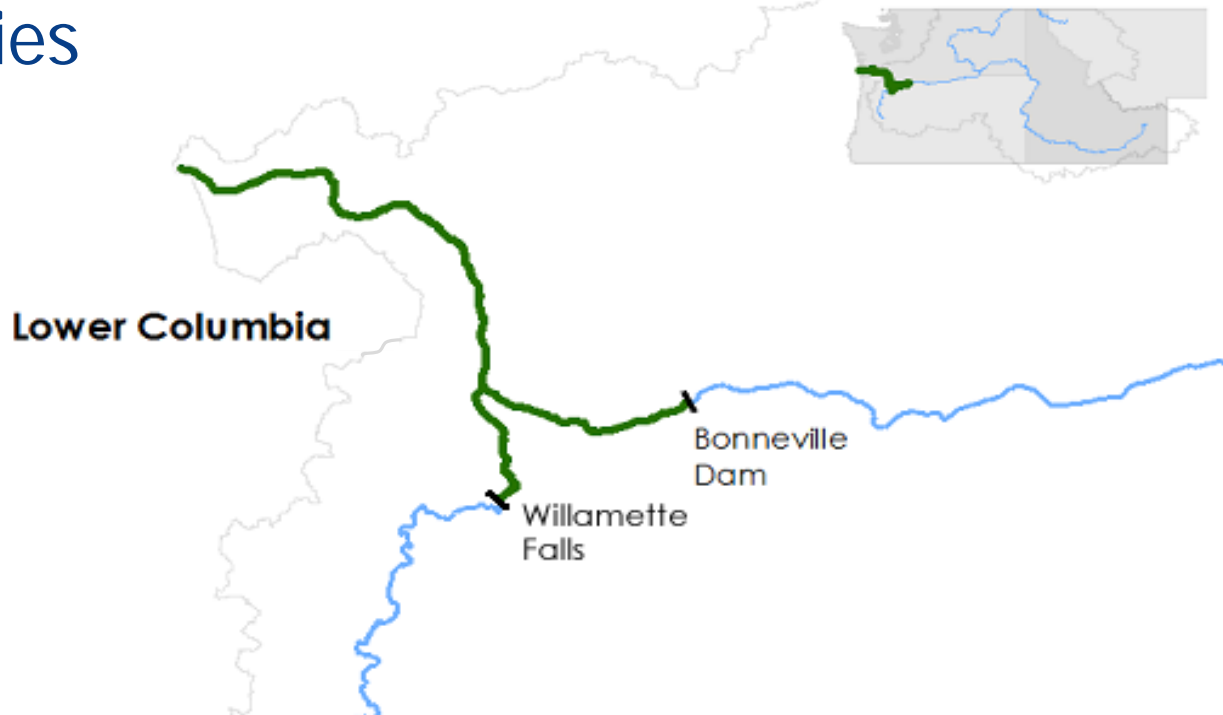
# Lower Columbia River White Sturgeon Population Status Update

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# Today's Topics

- \* Overview of long-term population metrics
- \* 2017 stock assessment results and current population status
- \* Status of lower Columbia River white sturgeon fisheries



# Metrics and Indicators

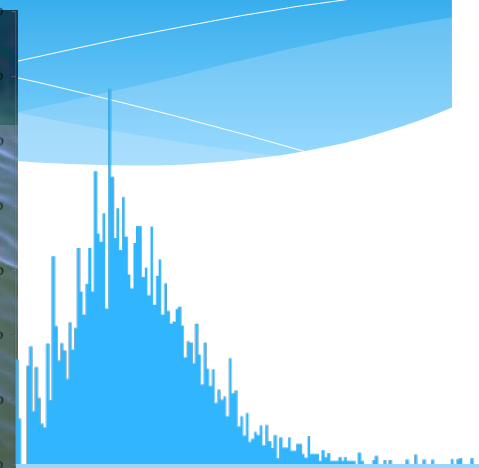
Lower Columbia River and Oregon Coast  
White Sturgeon Conservation Plan



Legal Abundance



Adult Abundance



Population Structure



August 2011

Age-0 Recruitment



Pinnipeds



Fisheries

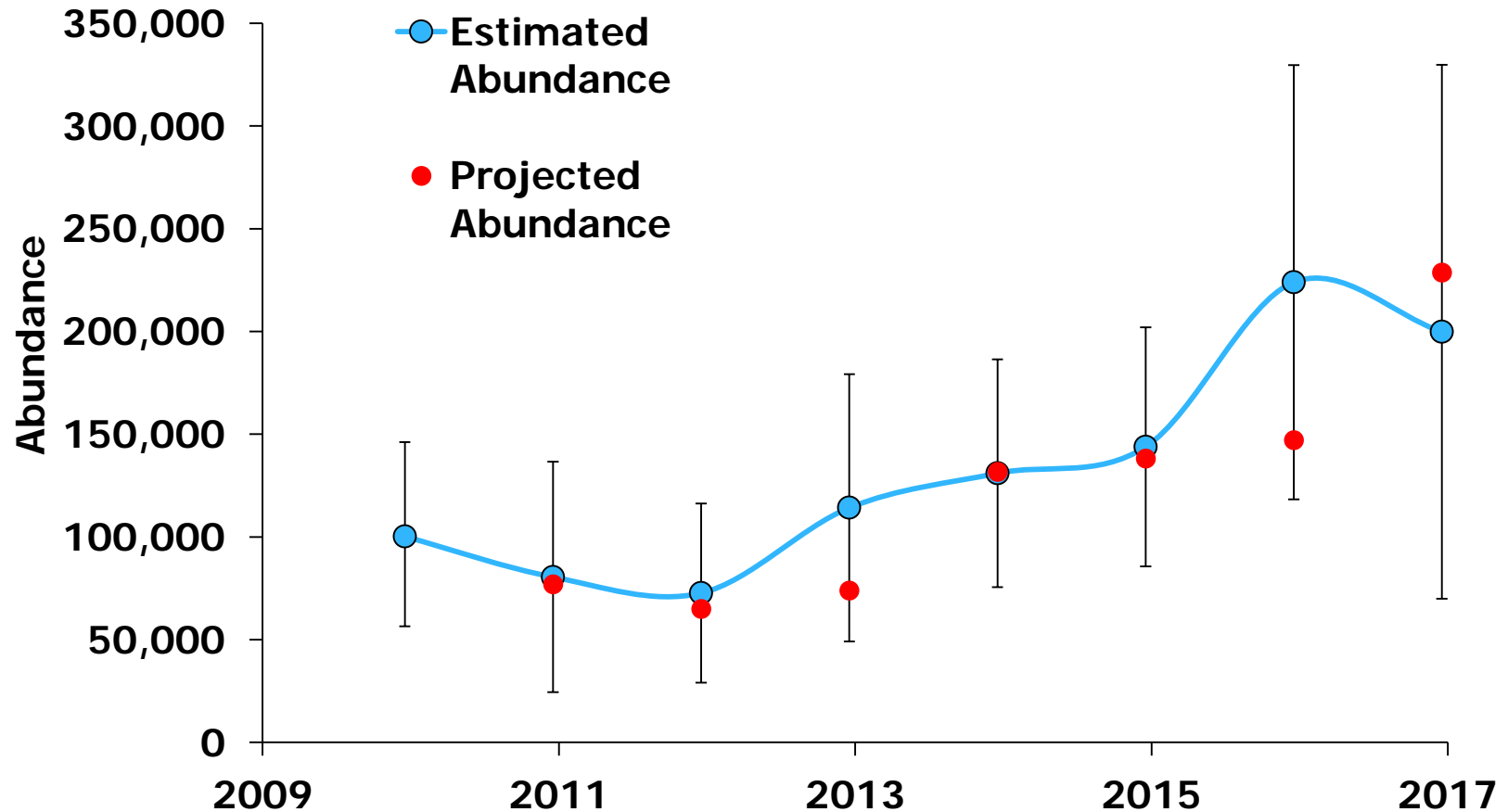


# 2017 LCR White Sturgeon Abundance

<b>Size Class</b>	<b><math>\hat{N}</math></b>	<b>95% Confidence limits</b>
Juveniles (54-95 cm FL)	393,602	137,745 – 649,459
Legal (96-137 cm FL)	199,830	69,932 – 329,727
Over-legals (138-166 cm FL)	31,681	11,087 – 52,276
Adults (167+ cm FL)	10,417	3,646 – 17,188
<b>Total (54 cm +)</b>	<b>635,530</b>	

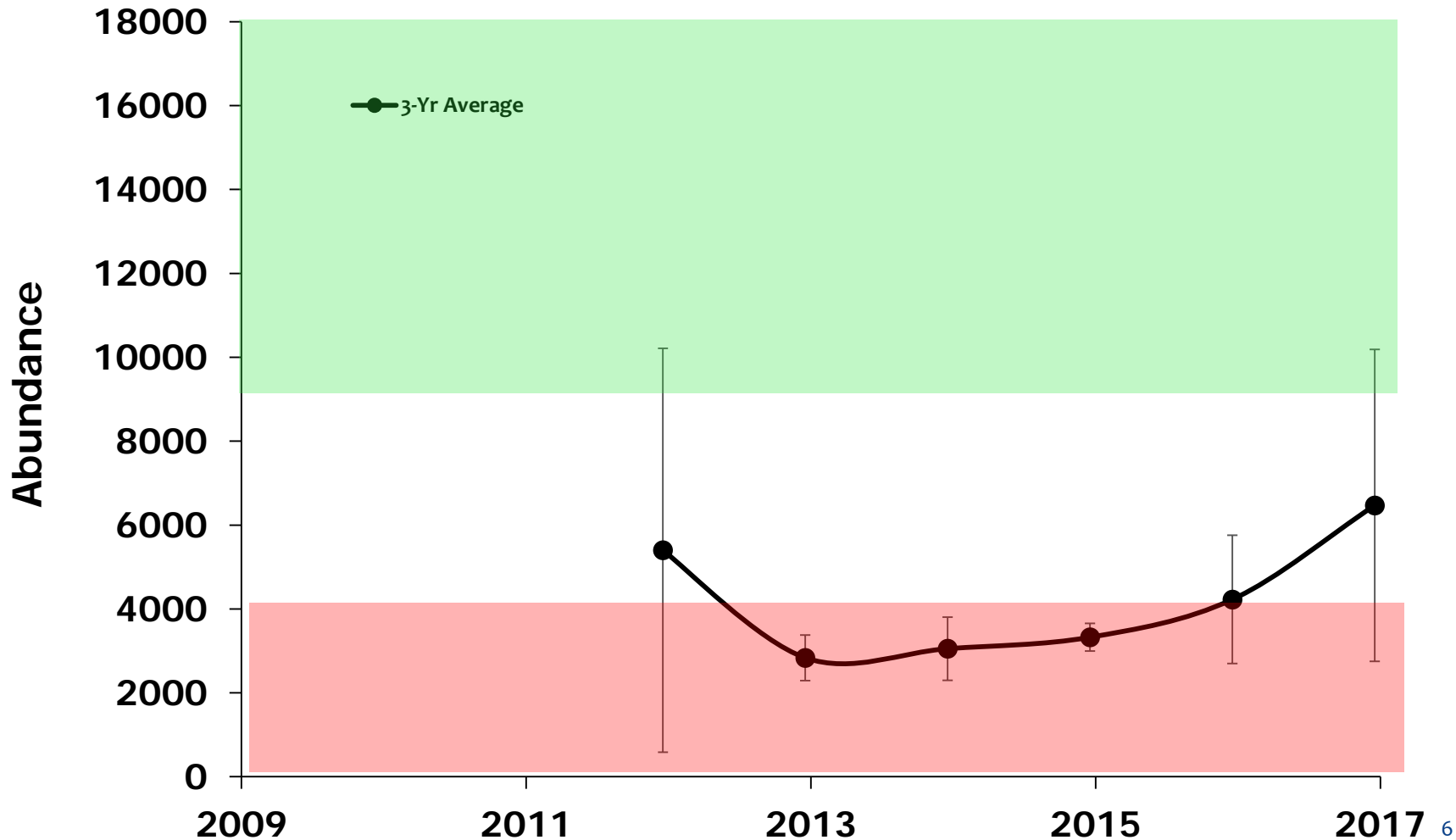
# LCR White Sturgeon Abundance

Estimated Legal Abundance (38" – 54" FL)

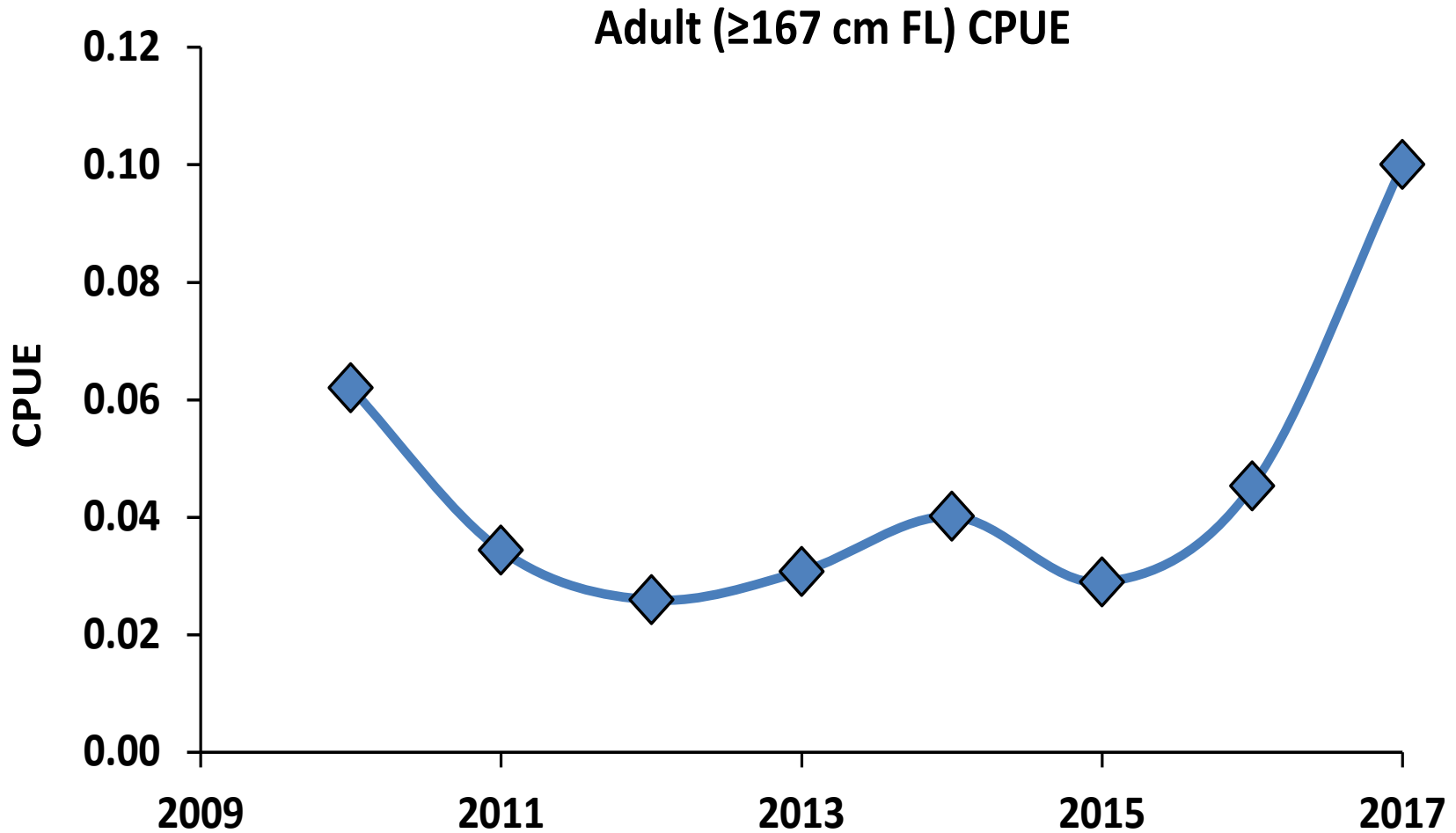


# LCR White Sturgeon Abundance

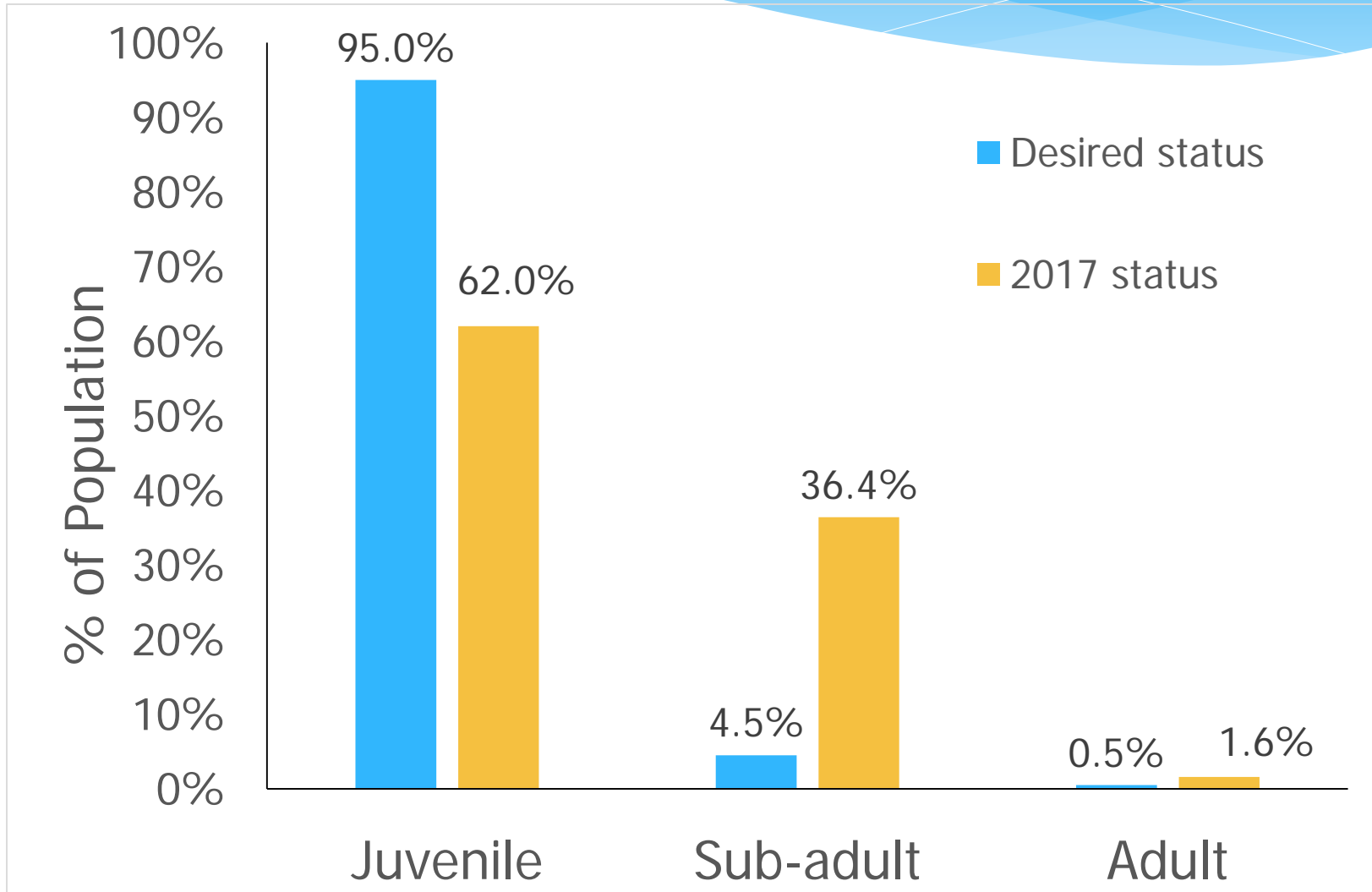
3 Year Average of Estimated Adult (> 65" FL) Abundance



# LCR White Sturgeon Abundance

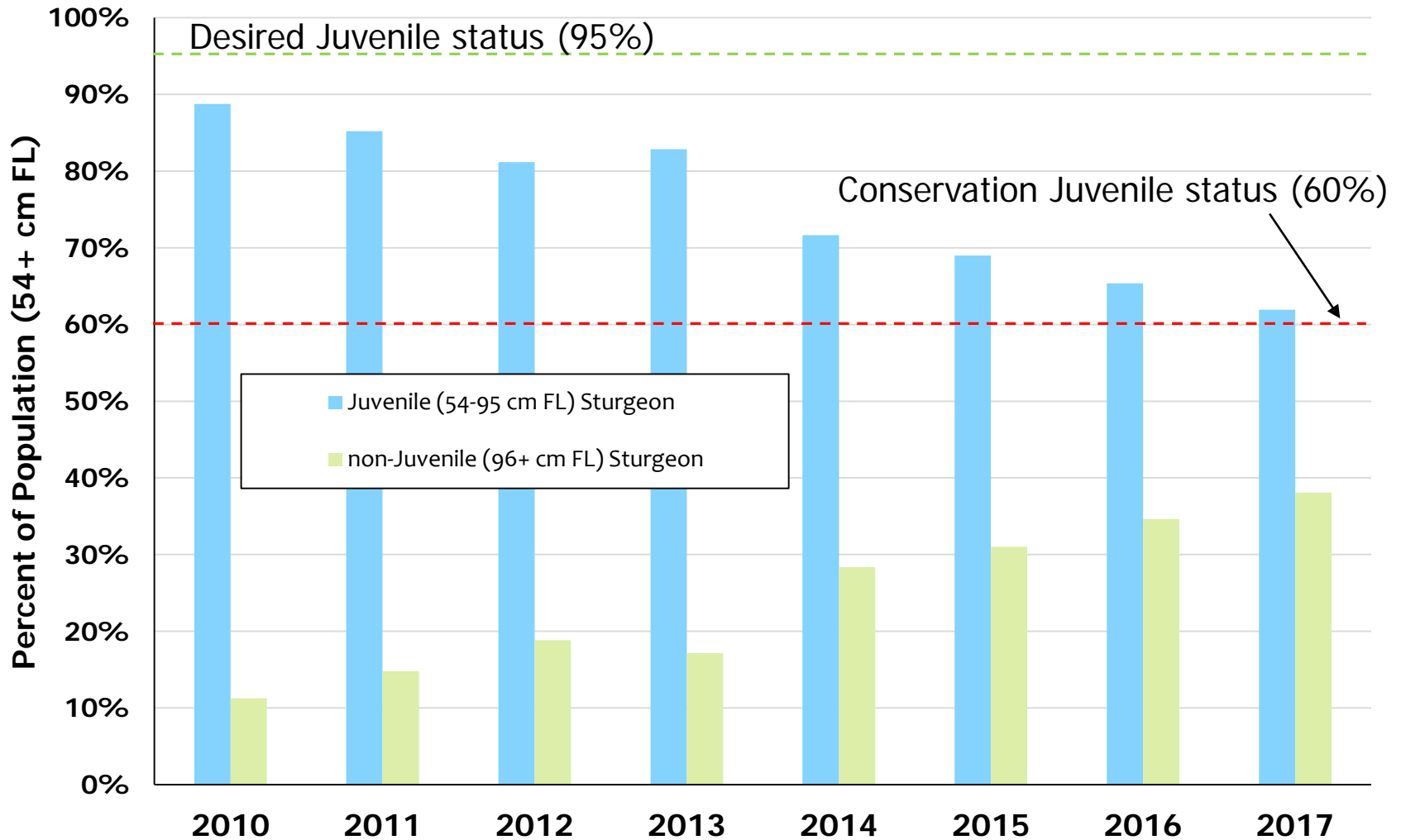


# LCR length frequency distribution

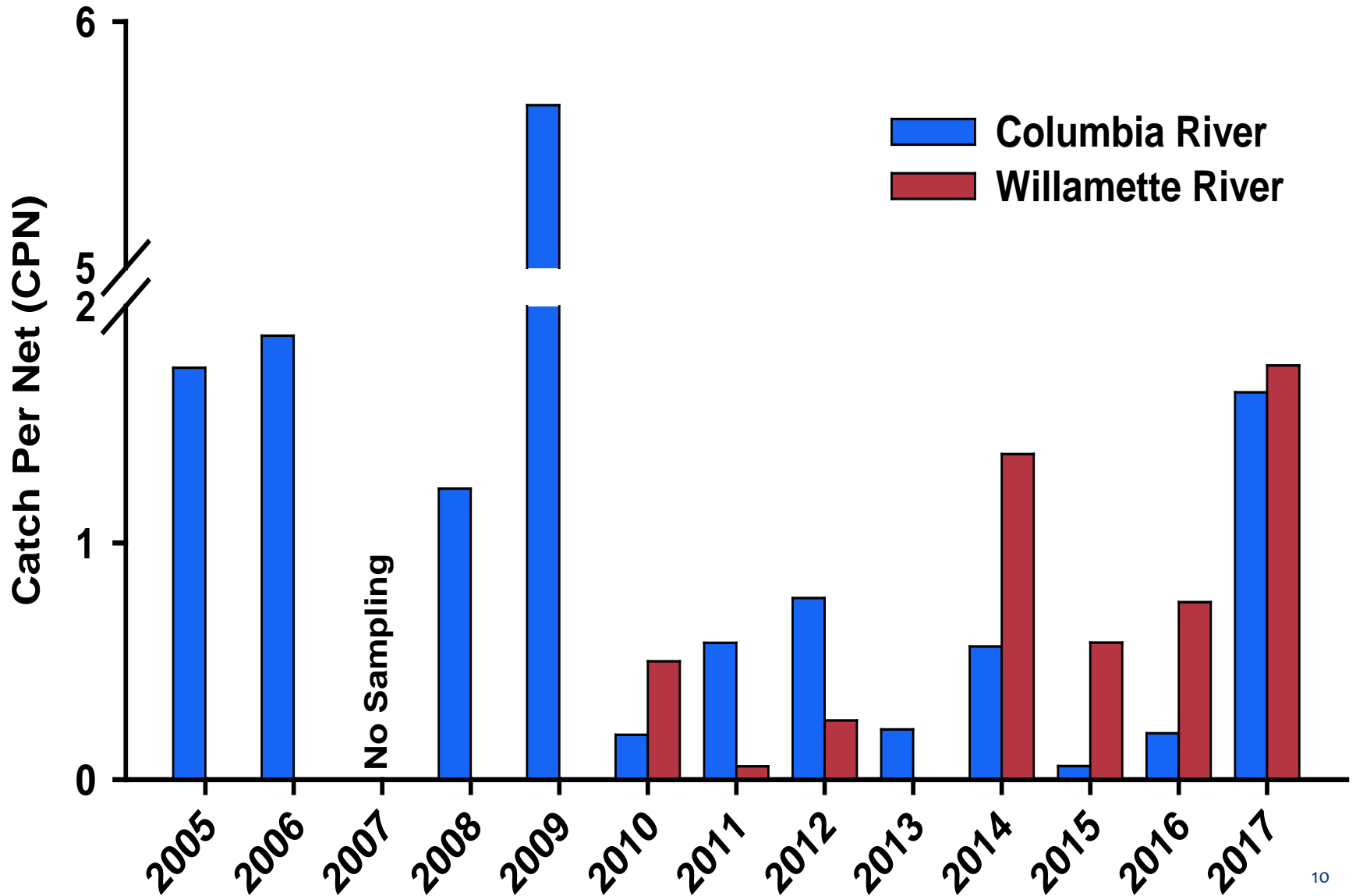




# LCR length frequency distribution

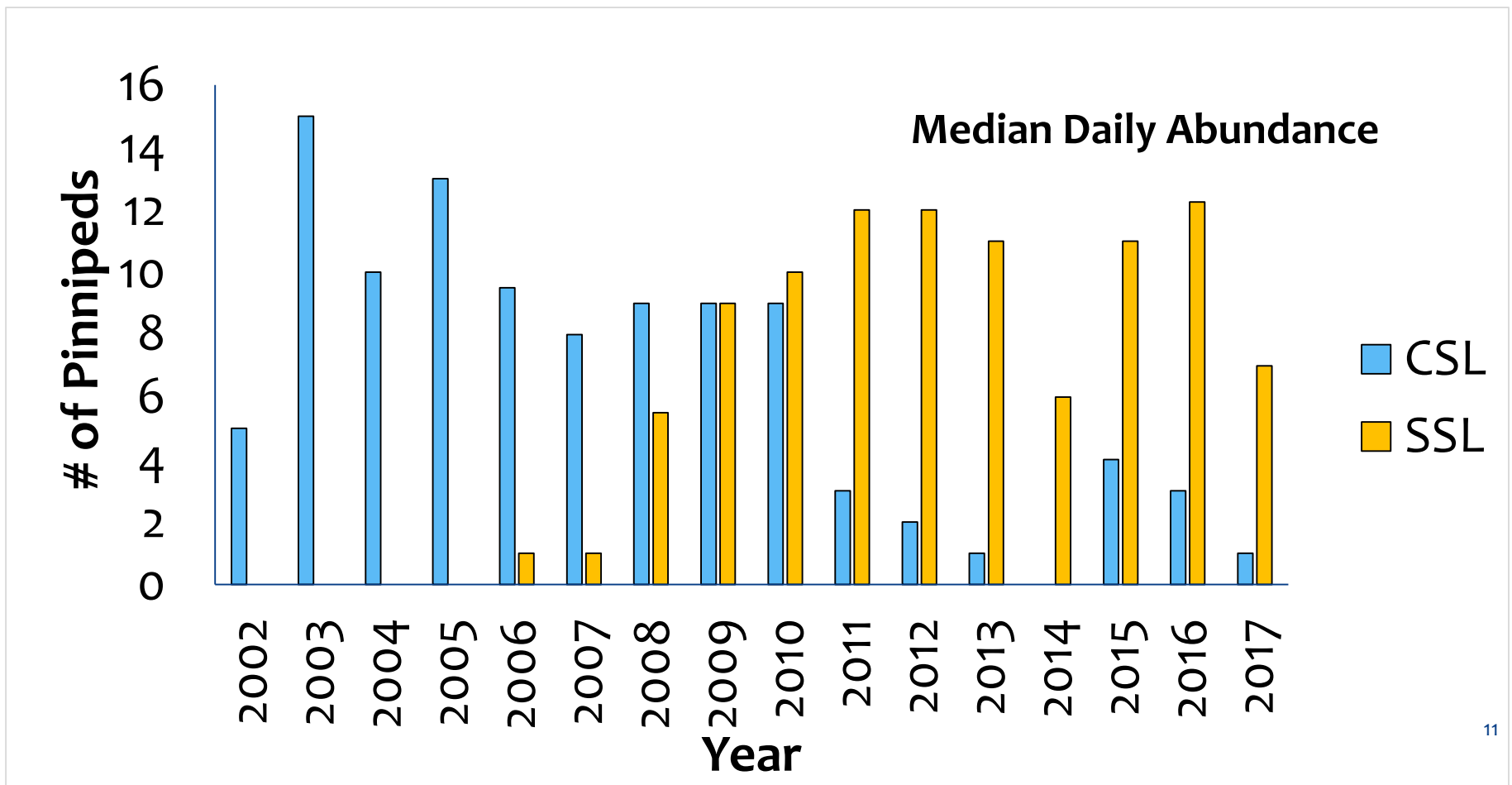


# LCR White Sturgeon Recruitment



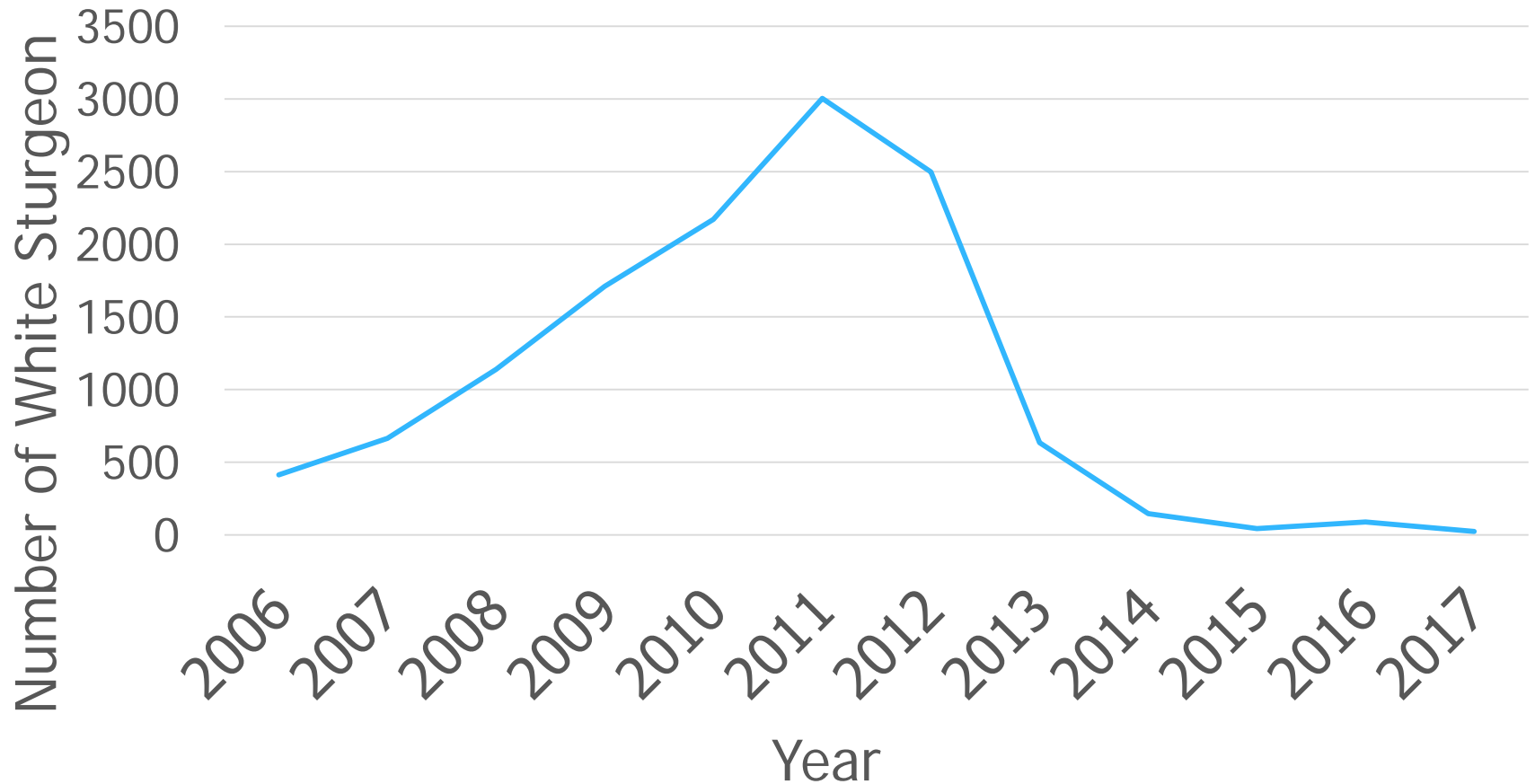
# Sea lion predation

- \* Steller Sea Lions arrive in 2005 and sturgeon started being deliberately targeted



# Sea lion predation

## White Sturgeon 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, 69 sturgeon predation events observed
- \* 2018: 4 Steller sea lions observed, 12 sturgeon predation events observed (thru Feb 1)

# Fisheries Review

- \* 2017 saw first retention sturgeon fisheries since 2013.
- \* Per CR policy allocation split 80:20 sport and commercial
- \* 5 openers (of 6 scheduled) in the estuary
  - \* June 5, 7, 10, 12, and 14
- \* 3 open days upstream of Wauna
  - \* Oct 21, 26, and 28
- \* 99% of commercial guideline (1,227 of 1,245) realized.

# Sport Fisheries Response

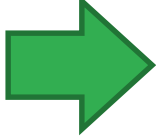



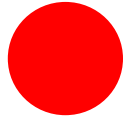

Year	Total		May - July Estuary	
	Trips (N)	% Change	Trips (N)	% Change
5yr Avg	69,553		29,955	
2014	3,120	-95%	1,620	-95%
2015	3,004	-96%	954	-97%
2016	4,372	-94%	2,380	-92%
2017	27,550	-60%	15,546	-48%

# Sport Fisheries Response

Year	Below Wauna		Above Wauna		Combined	
	Catch	Guideline	Catch	Guideline	Catch	Guideline
Avg: 09-13	6,948	8,026	3,228	4,755	10,176	12,781
2014	0	0	0	0	0	0
2015	0	0	0	0	0	0
2016	0	0	0	0	0	0
2017	3,235	3,000	430	1,245	3,665	4,245



# Summary

Metric	N	Interpretation	Brief Summary
Legal Abundance	199,830		Decrease from 2016, but 39% greater than 2015. Also, increasing trend in CPUE setline tagging fisheries continues.
Adult Abundance	10,400 3-yr Avg 6,450		2017 adult abundance estimate is above desired status level; 3-year avg is not (threshold = 9,250 adults).
Population Structure	~62% Juveniles		Continued low relative abundance of juvenile and sub-legal sized fish.
Recruitment Index (CPN)	CR: 1.64 WR: 1.75		Significant increase, 2017 highest since 2009 in LCR and 2010 (ever) for LWR.
Sea Lion Abundance	High		High sea lion abundance is problematic for white sturgeon populations.
Fisheries	15,546 (E) 27,550 (T)		Participation still down from retention fishery levels (pre-2014) but 6 fold increase from 2016.

# 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 on increasing trend
  - \* Legal abundance is significant
  - \* Productivity issues, but sturgeon life history strategy guards against short periods of low productivity
  - \* Sea lions are problematic
- \* Believe population is sufficiently robust to support limited fisheries similar to 2017



END

Questions/Discussion?