### Yakima River Summer/Fall Chinook Program 2015-16

by Melinda Davis Goudy Yakima Klickitat Fisheries Project (YKFP)



**AKAMA NATION** 

INDIAN DAYS-Tepees were frequent along Yakima River at The Gap. Mrs. Ray D. Cook collectio

# Thank You

Yakama Nation Trite I Council Prosser and Marion crews Roza: Mark Johnston and Joe Hoptowit Cle Elum: Charlie Strom Vernon Bogart Jr and Ted YN: Mel Sampson, Dave Fast, Todd Newsome, Bill Bill Fiander and Ida Sohappy-Ike WDFW Wells Hatchery USFWS Fish Health BPA

Fall Chinook/Coho: Gene Sutterlict Jr., Brady Carl, Joe Jay Pinkham III, Quincy Wallance and Denny Nagle, Nate Pinkham and Conan Northwind for the daily field activities.

27.

1.10

### The vision of the Yakama Nation is to bring back all species previously present in the Yakama Basin.

### Yakima River Fall Chinook Historical

Historically ~132,000 adults returned to spawn.
Returns ranged 600 early 80s-2-3,000 mid-80s
Restoration *through acclimation* began in *1994*.

 Currently average about 3,822 since supplementation releases began in 1999.

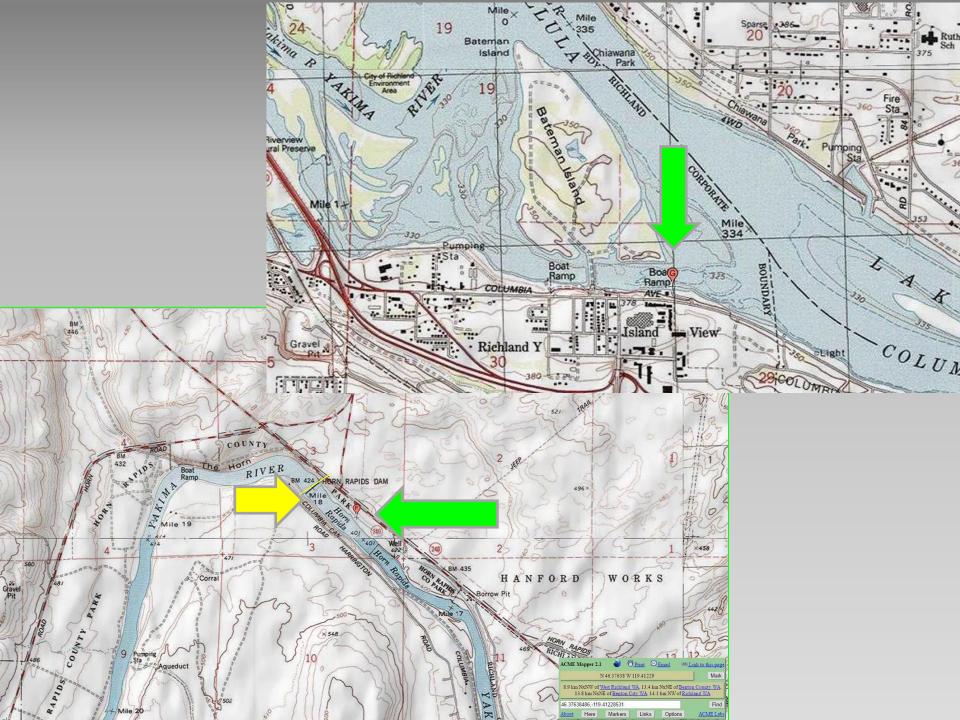
Summer Chinook *extirpated* early 1970s.
Reintroduction effort began in 2008.
1<sup>st</sup> Summer Adult Returns in 2011

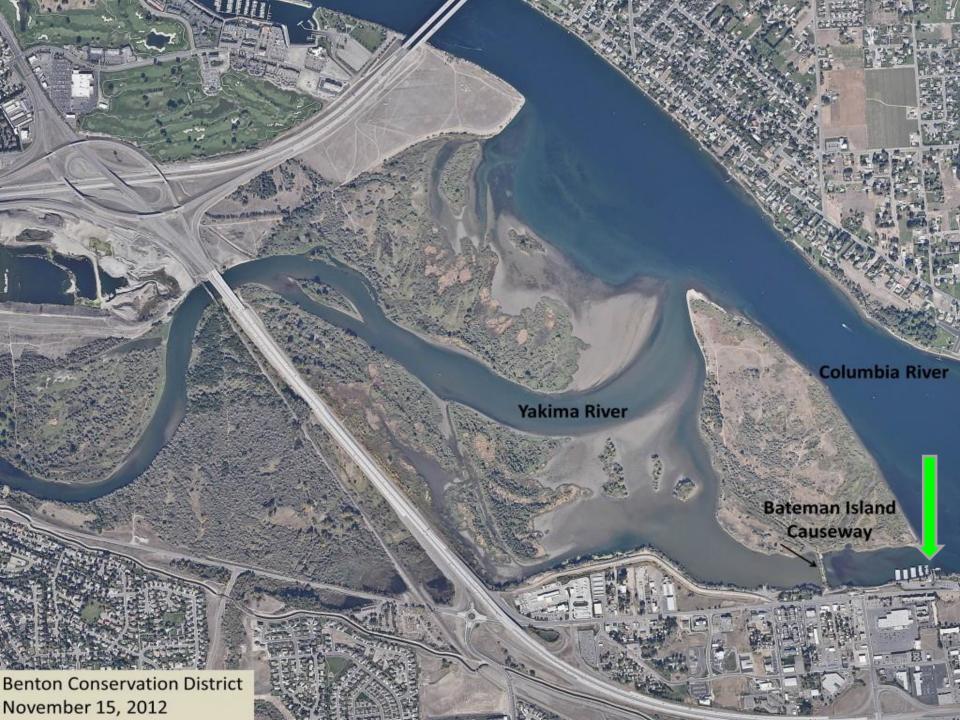
# Yakima River Releases 2010-16

Released	LWH	PRH	PROsub	PROyear	Marion	TOTAL
2012	1,200,000	405,000	269,633	19,432	72,258	1,966,323
2013	1,506,725		184,949	22,735		1,714,409
2014	1,542,702	379,970	445,347			2,368,019
2015	1,653,495	479078	584,397			2,716,970
2013	1,000,170	119070	501,557			2,110,710
2016	1,700,000		542,472			2,242,472

# 2008-2015 Smolt Survival to McNary of PIT-tagged Subyearling Fall Chinook

Release		Yearling	Subye	arling					
Year	ear Measure		Prosser						
2009 Tagging-to-McNary Survival		72.4%	26.8%						
Number Tagged		7,516	7,5	65					
2010 Tagging-to-McNary Survival		60.6%	22.8%						
Number Tagged		12,167	13,685						
2011 Tagging-to-McNary Survival		59.2%	16.0%						
Number Tagged		22,754	22,790						
2012	2012 Tagging-to-McNary Survival		27.9%						
	Number Tagged		19,634						
2013	Tagging-to-McNary Survival	55.7%	6 40.0%						
	Number Tagged	13,685	22,966						
2014	Tagging-to-McNary Survival		23.7%						
	Number Tagged		4,025						
	Release Site		Prosser			Wanawish		Yakima River Mouth	
					Priest				
2015	Stock		Yakima		Rapids	Yakima		Yakima	
	Release Group		Early	Late	Early	Early	Late	Early	Late
	Release Date - Replication 1		05/06/15	06/02/15	05/06/15	05/29/15	06/02/15	05/29/15	06/02/15
Ι.	Release Date - Replication 1		05/08/15	06/02/15	05/08/15				
	Tagging-to-McNary Survival		7.31%	4.94%	7.10%	7.10%	0.00%	39.87%	7.56%
Ι.	Number Tagged		4,021	14,156	4,018	4,044	2,004	1,668	1,018
	Pooled Tagging-to-McNary Survival	5.5%		5%	7.1%	7.1%		27.6%	
	Pooled Number Tagged		18,177		4,018	4,044		2,686	





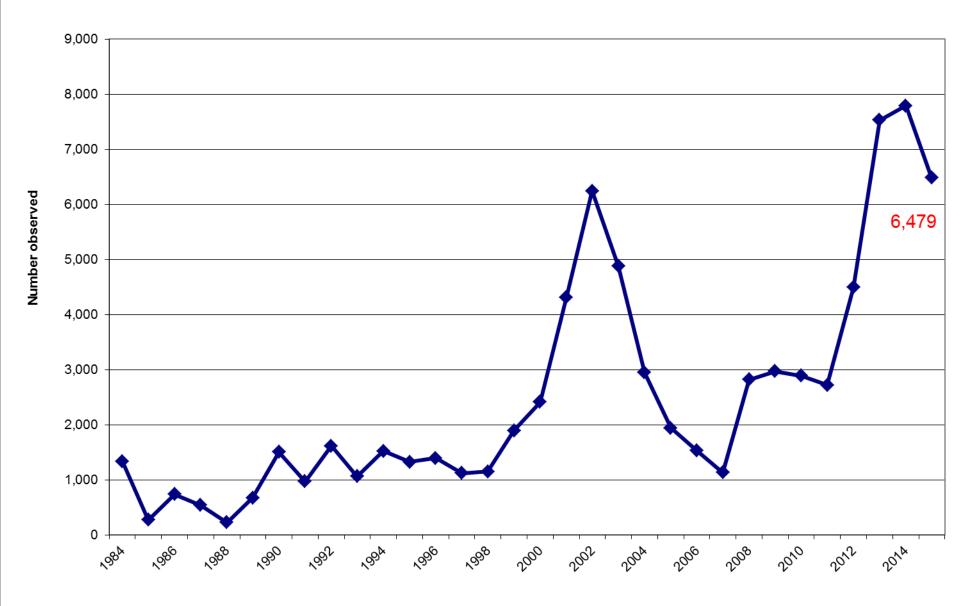
### Releases 5/29/15 and 6/2/16

- 39% wow and 4 days later 7.5% at the Mouth
- Similar survival for both the early Prosser and Wannawish releases at 7.3% and 7.1% Then 4 days later 4.9% and 0% respectively.

The 39% Question

What was going the day of the release?

#### Fall Chinook Adult Passage above Prosser Dam

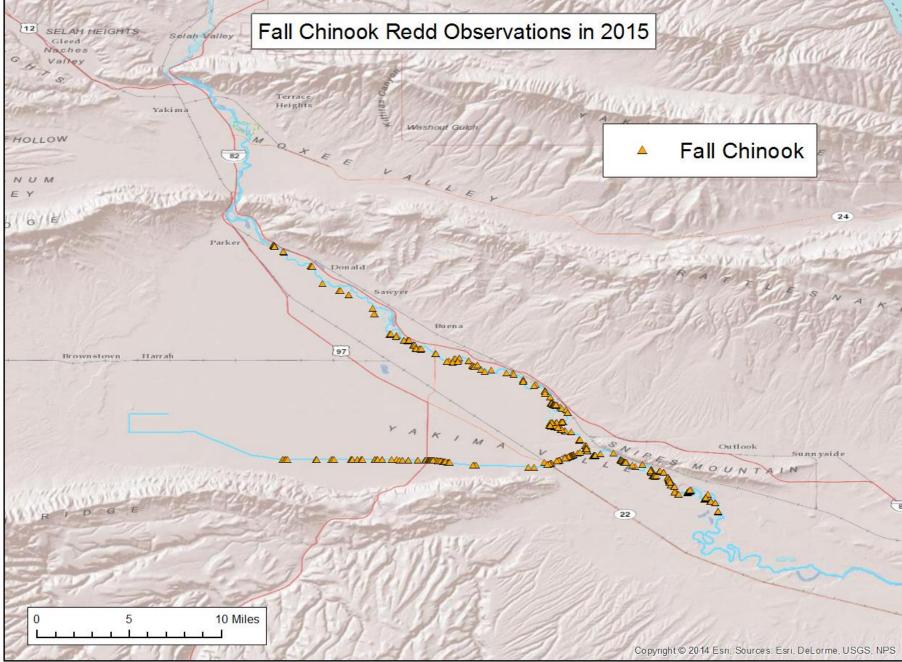


## 2015 Redd Surveys above Prosser

6,479 Adults over Prosser Dam

Yakima River- 1,194 Redds

Naches River- 0 Red



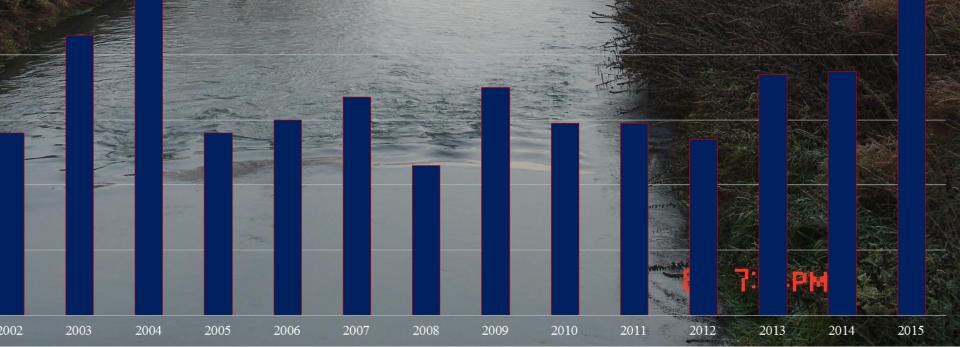
C:\avdata\FallChinookRedds\2015\fallchinook2015.mxd Paul Huffman, Yakama Fisheries, 6/14/2016

### Marion Drain Redds 2001-2015

#### since 2001, avg 66 redds

TTTTT

160



# Re-Establishing Summer Chinook in the Yakima River

- **Objective:** <u>To initiate investigation of the feasibility of establishing an early-run fall Chinook population in the Yakima River, with the goals being to:</u>
- Develop a naturally spawning adult population in the Yakima River between Sunnyside Dam and Roza Dam, and in the lower Naches River from the mouth to the Tieton River, and,
- Increase the number of natural-origin returning summer-run adults in the lower Columbia, Zone 6, and the lower Yakima River contributing to harvest augmentation for both the tribal and sports fishery.

# **First Collection**

- Collected our first brood at the WDFW Wells Hatchery in 2008
- Have continued to release a goal of up to 250,000 annually

# **WDFW Wells Hatchery**









# **YN Marion Drain Hatchery**



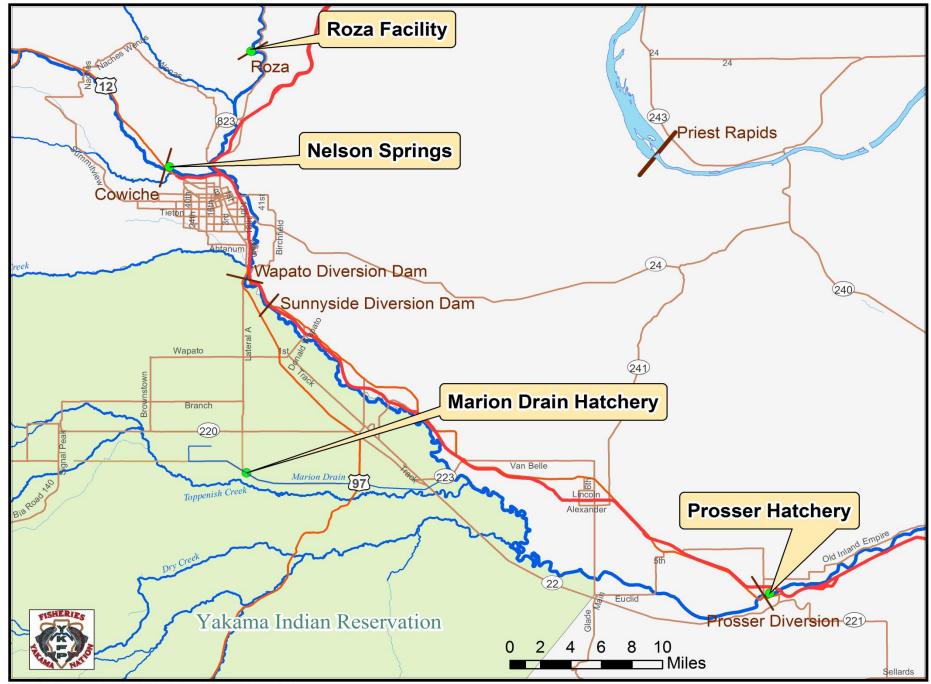












Paul Huffman, Yakama Nation Fisheries, 3/08/2013 C:\avdata\subbasinyak\fallchinooksites2.mxd



# Hooray!

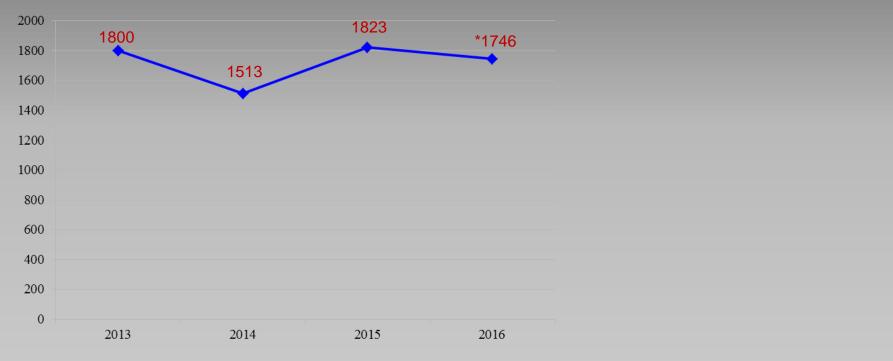
#### FIRST to return over Prosser on 7/16/11.

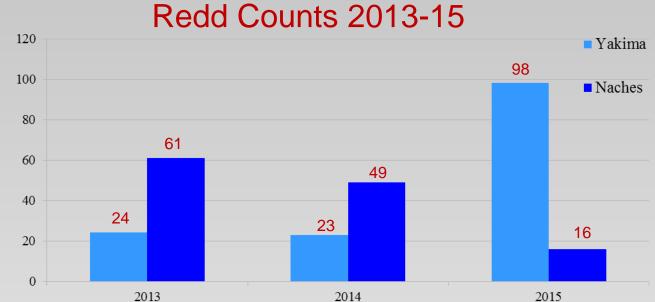


BY2008 Stiles release observed at Prosser 7/16/11

MOTION & POST-ALARM

#### Adult Returns over Prosser 2013-\*16

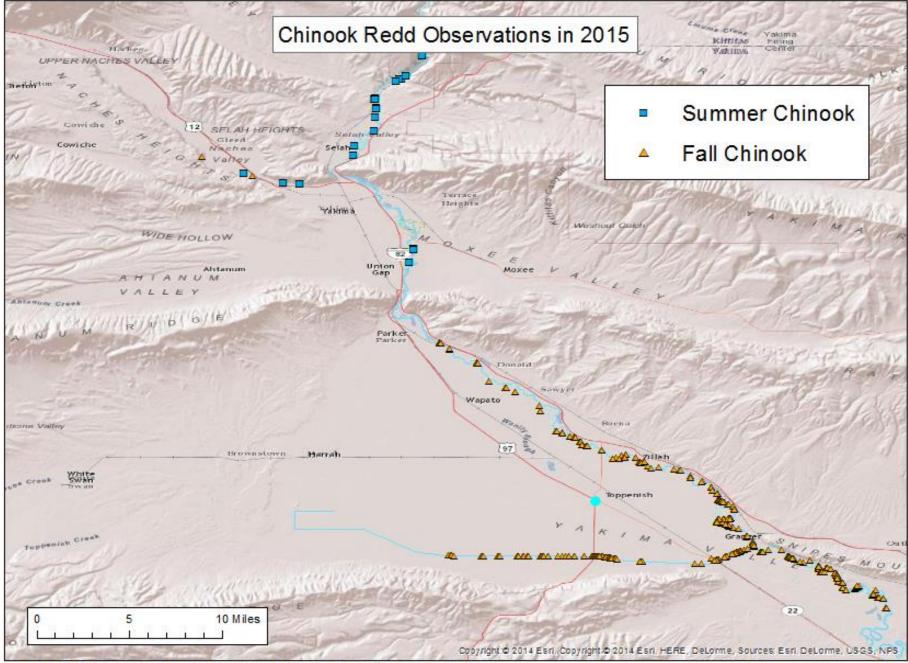




# 2015 Redd Surveys above Prosser

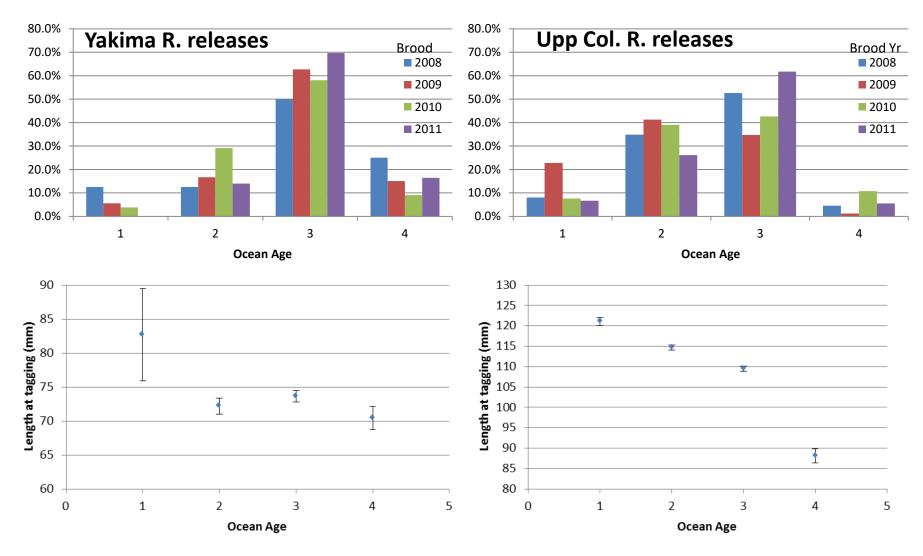
### 1,823 Summer Chinook Adults over Prosser

Yakima River- <u>98 Redds</u> Naches River- <u>16 Redds</u>

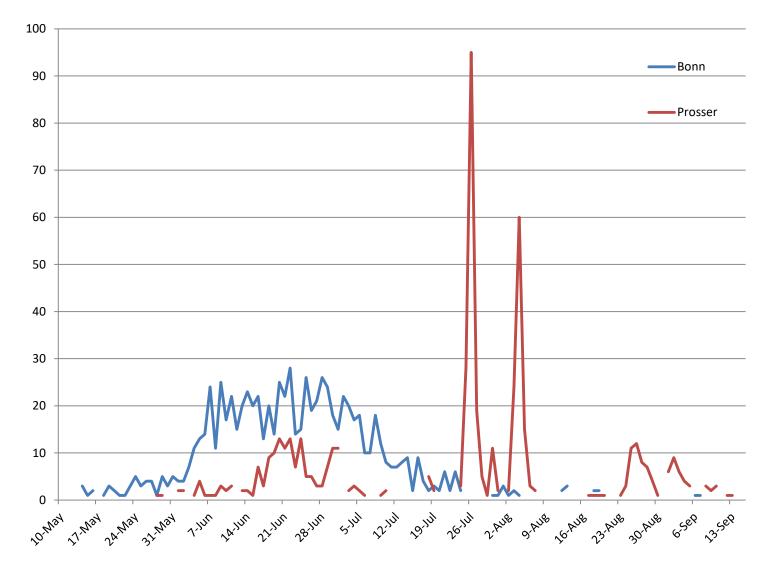


C:lavdata/Fall/ChinookRedds/2015/fallsum merchinook2015.mx d Paul Huffman, Yakama Fisherles, 6/15/2015

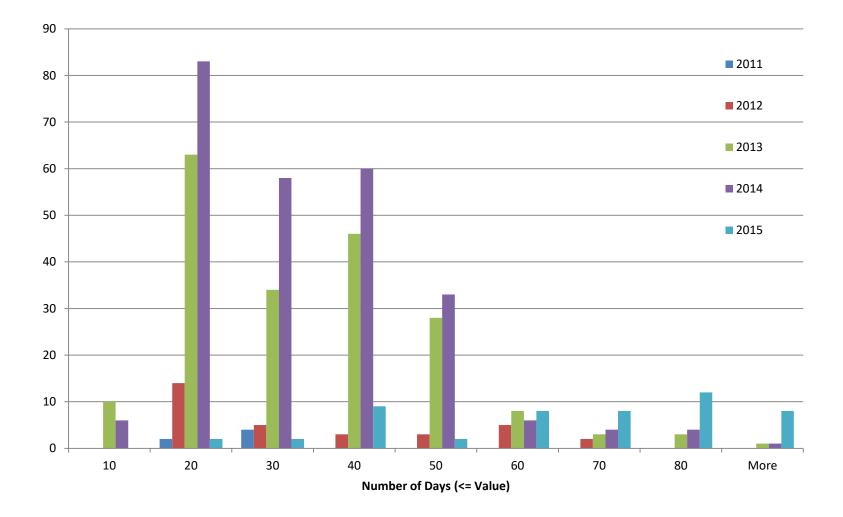
#### Comparison of Yakima and Upper Columbia SuCh Age Composition based on PIT returns to Bonneville Dam



#### Summer Chinook PIT-Based Run Timing at Bonneville and Prosser Dams

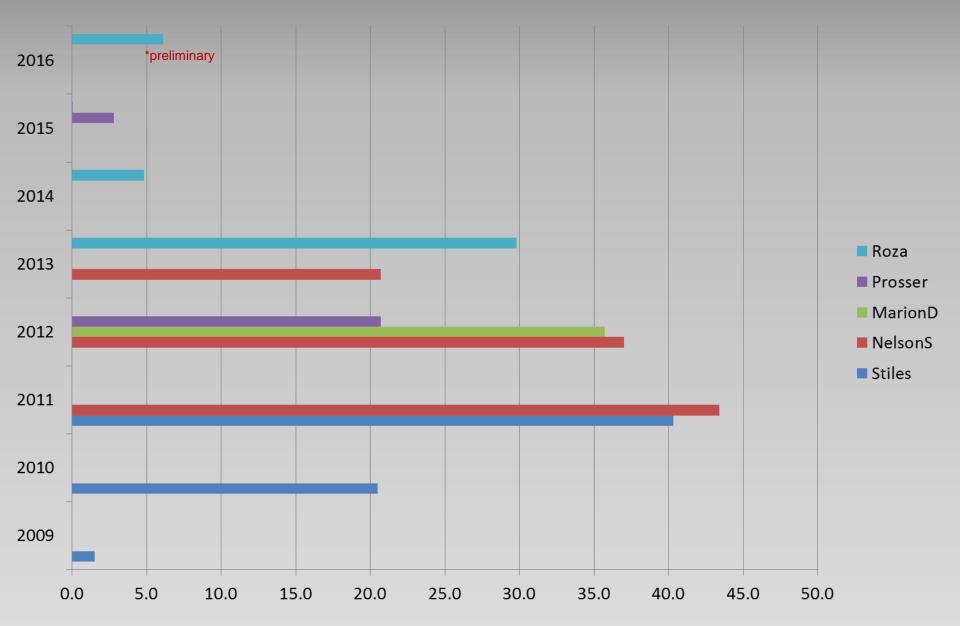


#### Summer Chinook Adult PIT-Based Travel Times from Bonneville to Prosser Dams



(Bosch, 2016)

### % Survival to McNary



# 2016-16 Plans on-going

- Bring in green eggs/milt from Wells Hatchery (MarionD); Final acclimation and release at Nelson and Roza sites.
- Continue In-basin Subyearling releases at Prosser
- Repeat releases below Wannawish and at the Mouth
- Redd Surveys on the Yakima River between Prosser and Roza Dams and lower Naches River.

