

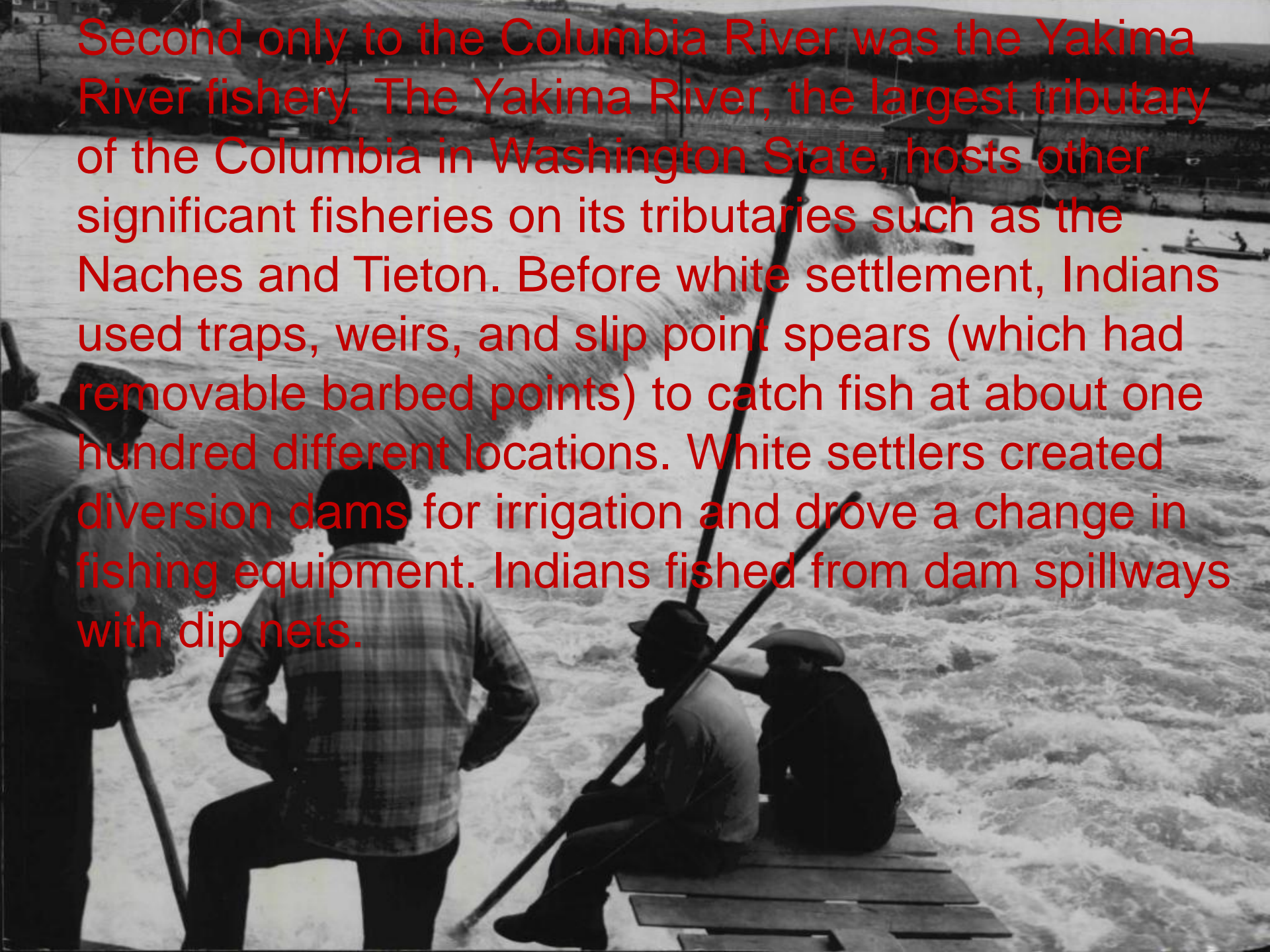
Yakima River Fall Chinook Supplementation 2012-13

by Melinda Davis
Yakima Klickitat Fisheries Project (YKFP)

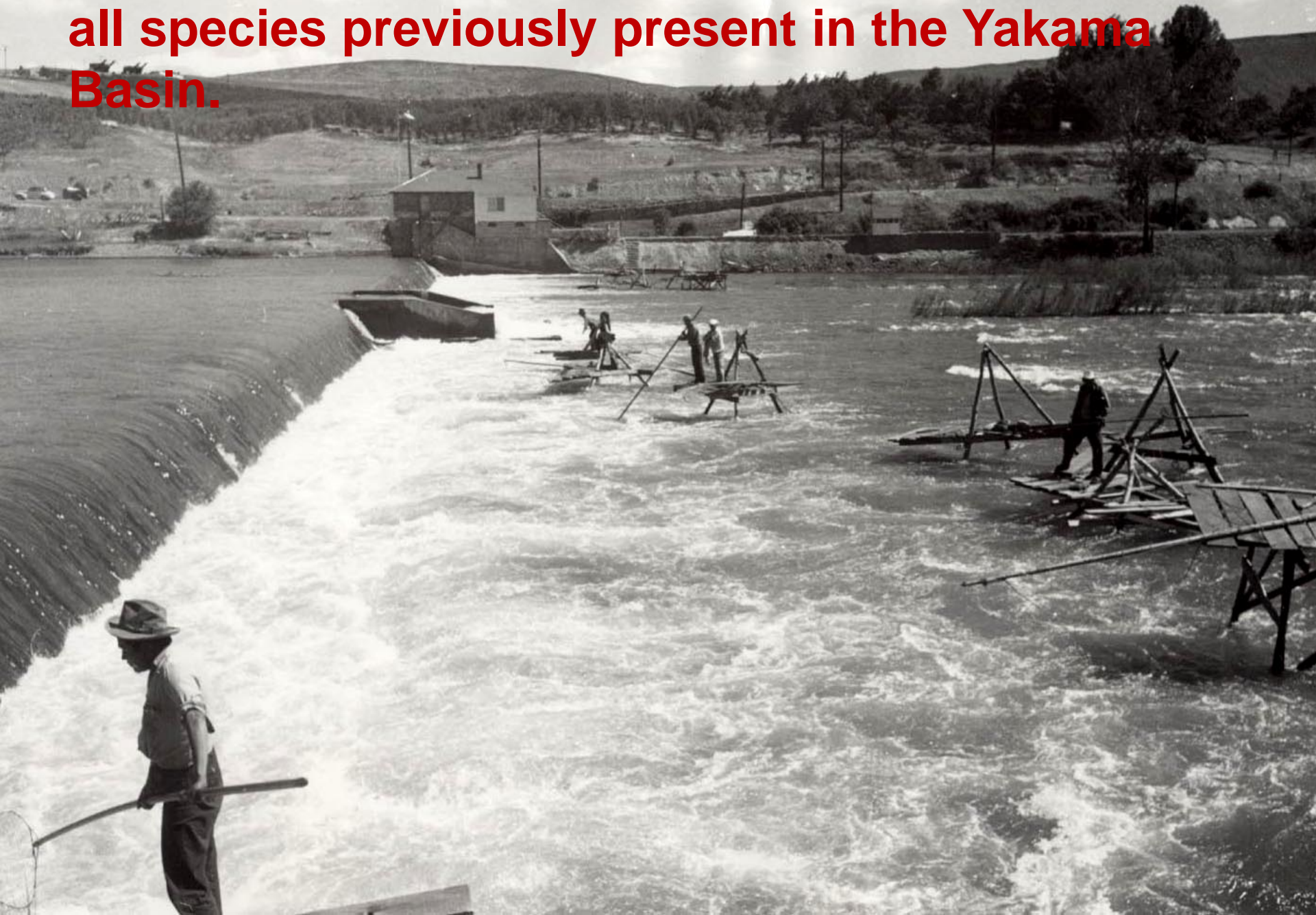


YAKAMA NATION

Second only to the Columbia River was the Yakima River fishery. The Yakima River, the largest tributary of the Columbia in Washington State, hosts other significant fisheries on its tributaries such as the Naches and Tieton. Before white settlement, Indians used traps, weirs, and slip point spears (which had removable barbed points) to catch fish at about one hundred different locations. White settlers created diversion dams for irrigation and drove a change in fishing equipment. Indians fished from dam spillways with dip nets.



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



Goals and Objectives

Conservation: 1) increase population viability (abundance, diversity and spatial distribution) by moving to a locally adapted fall Chinook brood stock and by re-establishing a summer run component, and

2) ensure that population size remains large enough to allow the population to maintain itself



Yakima River Fall Chinook Historical

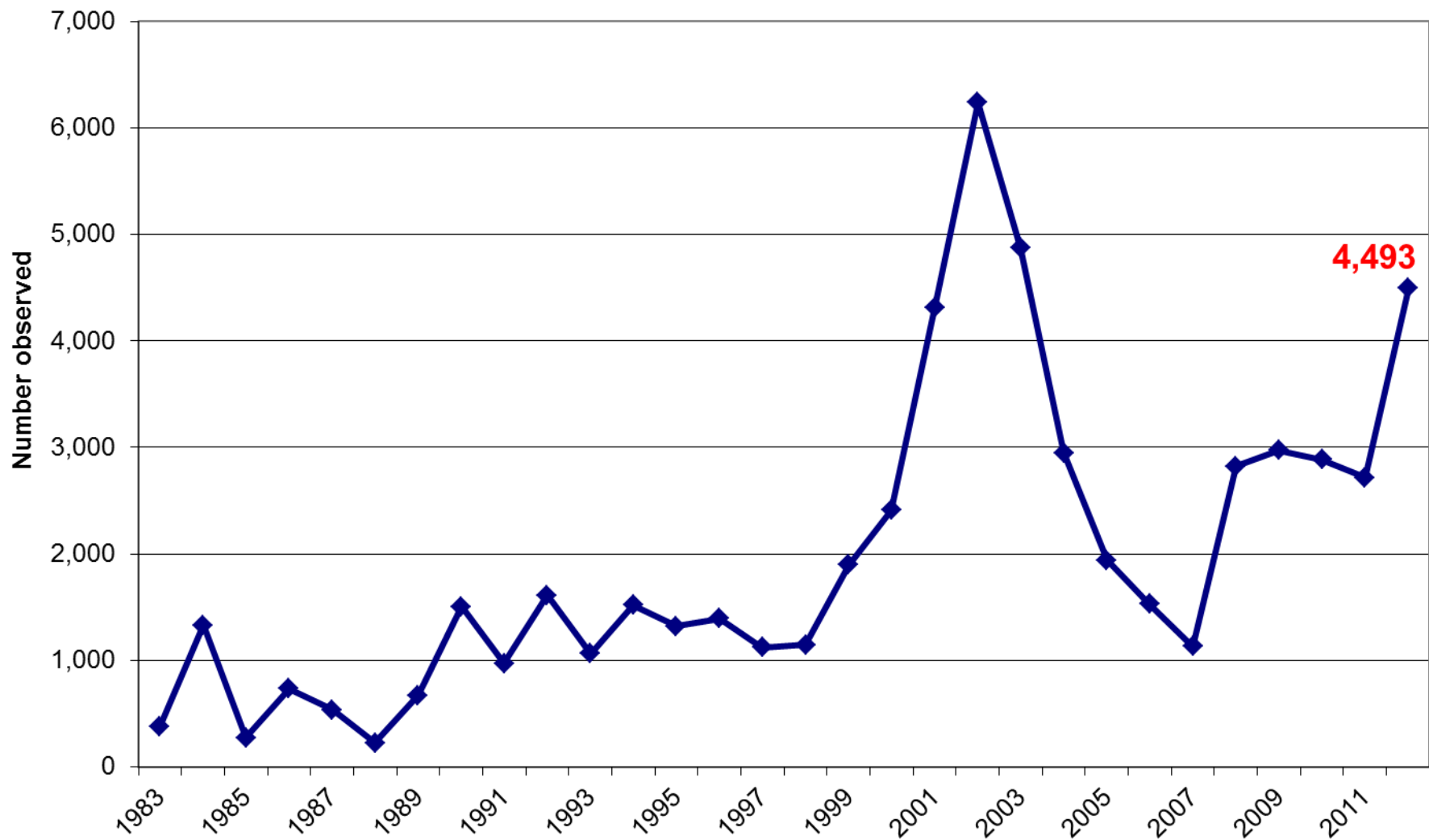
- Historically ~132,000 adults returned to spawn
- Early 80s adult returns went low as 600 adults
- Scatter planted parr throughout 80s mid Yak)
- Mid-80s were averaging 2-3,000 adult returns
- Restoration *through acclimation* began in 1994.
- Currently average about 3,084 since supplementation releases began in 1999.

- Summer Chinook *extirpated* early 1970s till present. Reintroduction effort began in 2008.

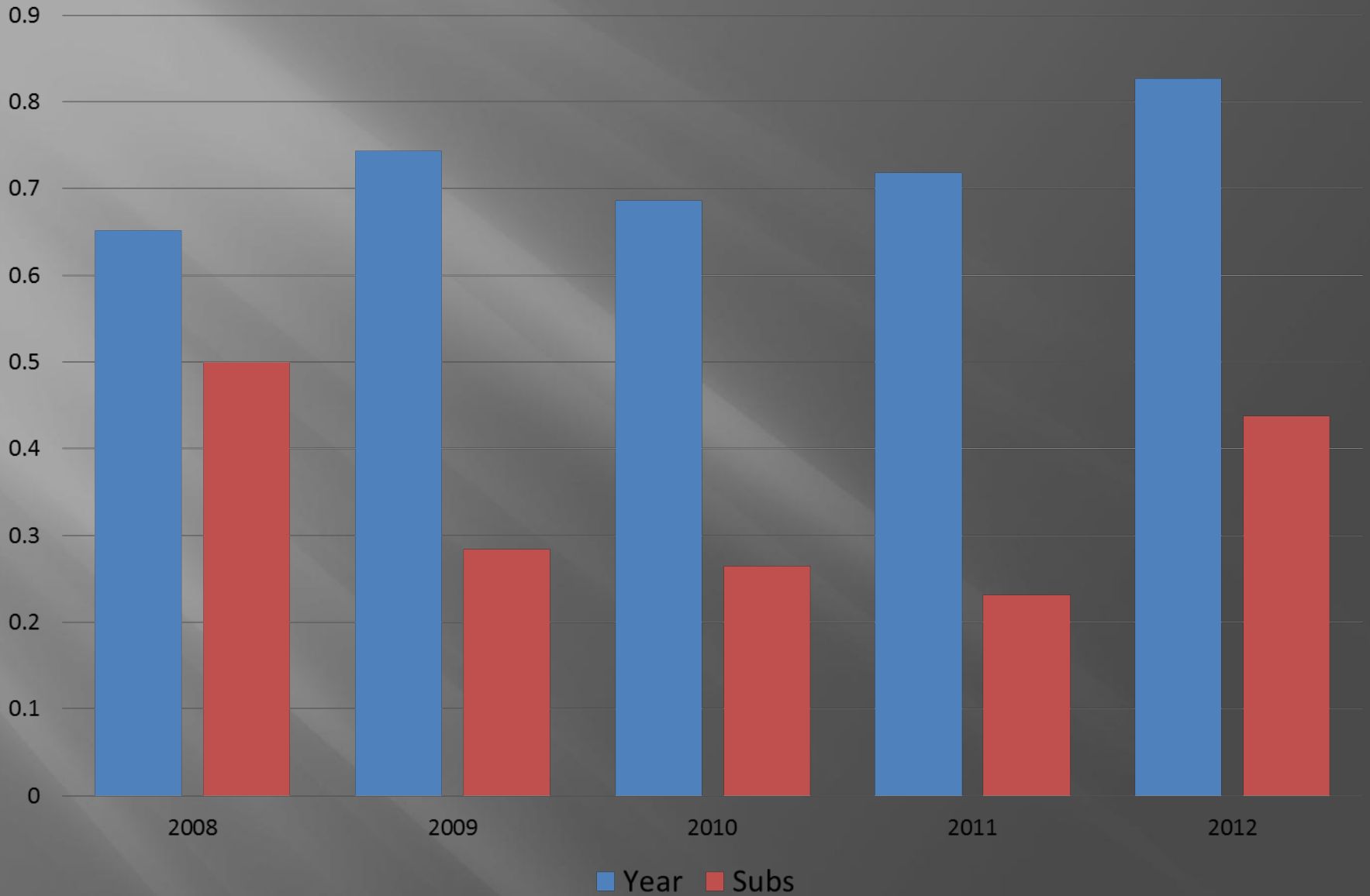
Yakima River Releases 2000-13

Released	LWH	PRH	PROsub	PROyear	Marion	Billys	StiSubs	PROsum	WennYear	NelsonSp	Roza	TOTAL
1997	1,694,861											1,694,861
1998	1,695,399											1,695,399
1999	1,690,000		192,000									1,882,000
2000	1,695,037		306,000		16,000							2,017,037
2001	1,699,136		427,753		12,000							2,138,889
2002	1,704,348		286,158		4,000							1,994,506
2003	1,771,129		365,409		18,000							2,154,538
2004	1,748,200		561,385		52,223							2,361,808
2005	1,700,000		466,000		41,000	75,000	38,890					2,320,890
2006	1,683,664		130,002		2,000		118,835					1,934,501
2007	1,700,000		50,000		15,731	5000	75,000					1,845,731
2008	789,993		514,069	1833	5,253	11,308	72,296	5,417				900,169
2009	1,647,275		299,574	7,516	24,245		180,911					2,159,521
2010	1,680,045		290,282	12,167	22,945		200,747					2,206,186
2011	1,699,944	503,772	620,952	22,857					176,364	39,406		3,023,889
2012	1,200,000	405,000	269,633	19,432	72,258			98,300		98,803		2,163,426
2013	1,506,725		184,949	22,735						88,208	48,355	1,762,852

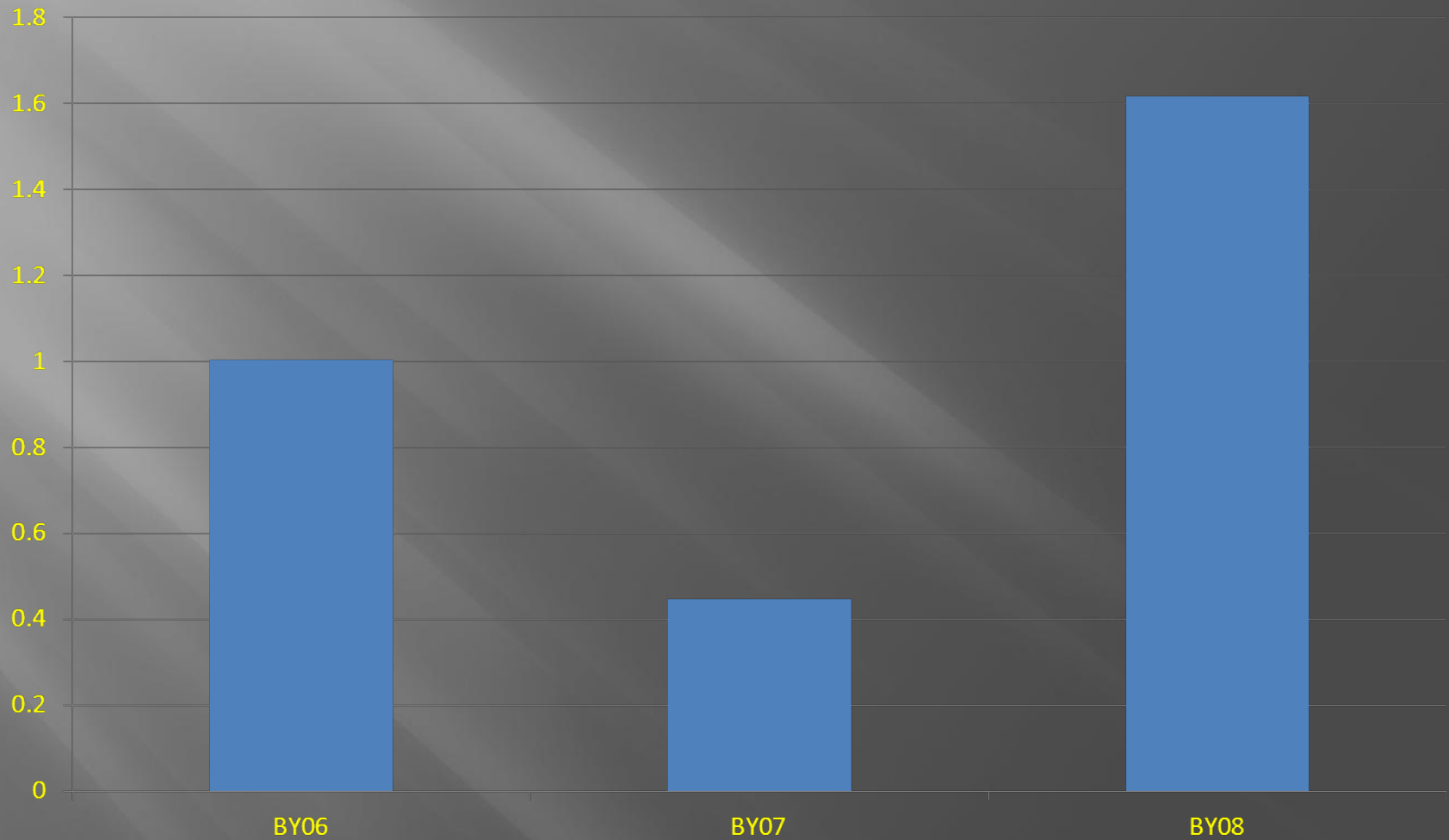
Fall Chinook Adult Passage above Prosser Dam

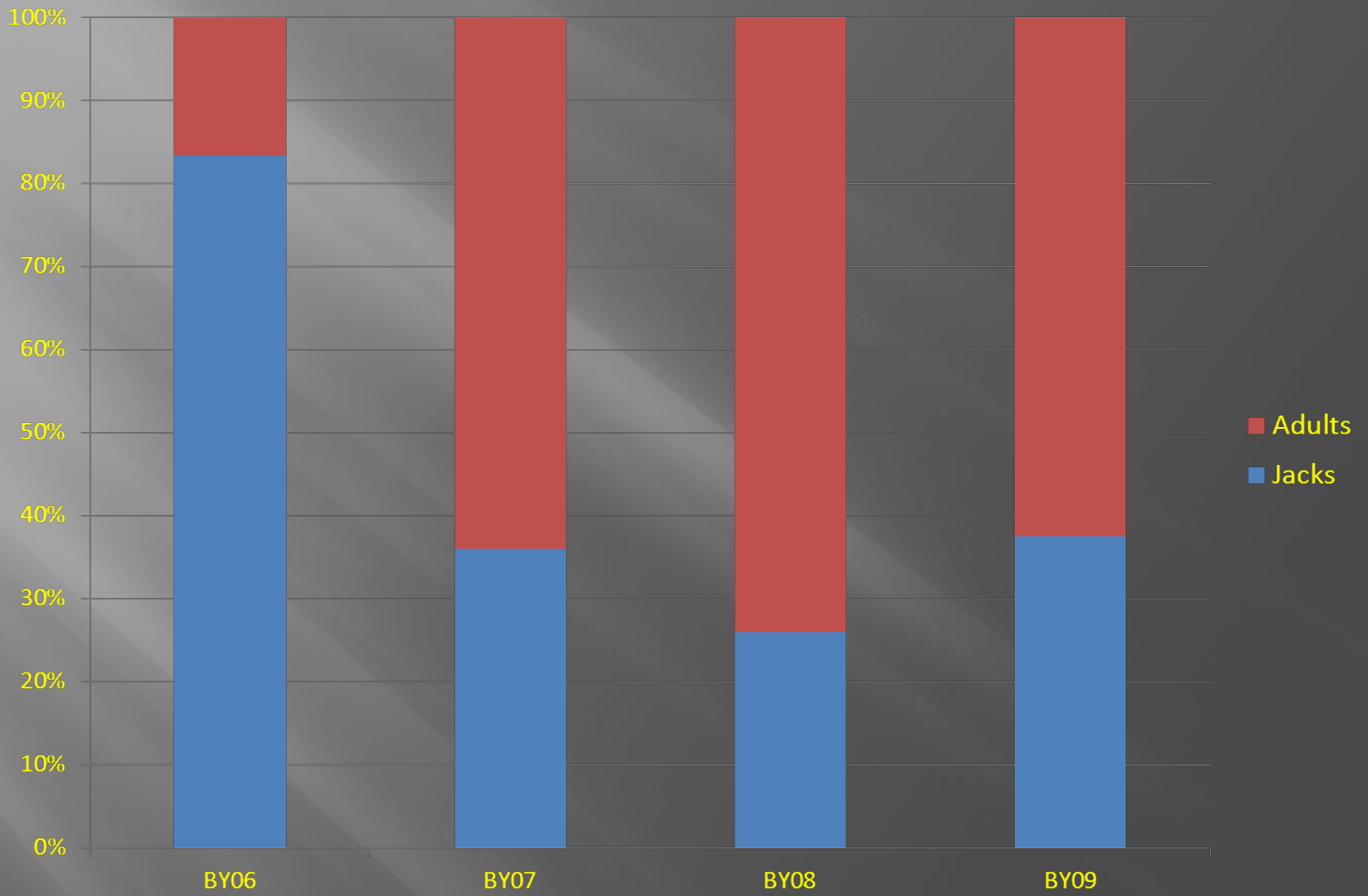


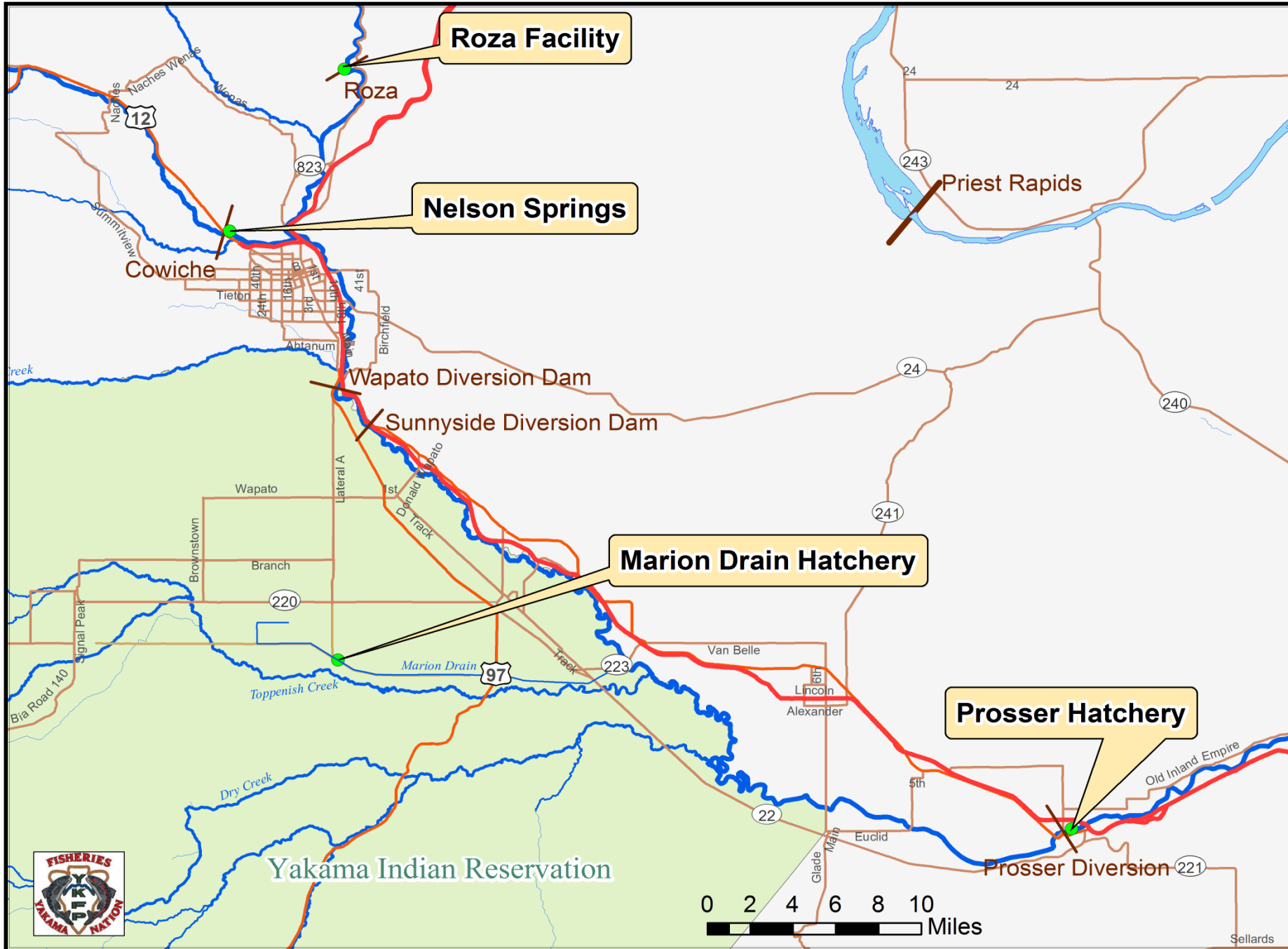
Fall Chinook-Volitional Release to McNary Smolt-to-Smolt Survival

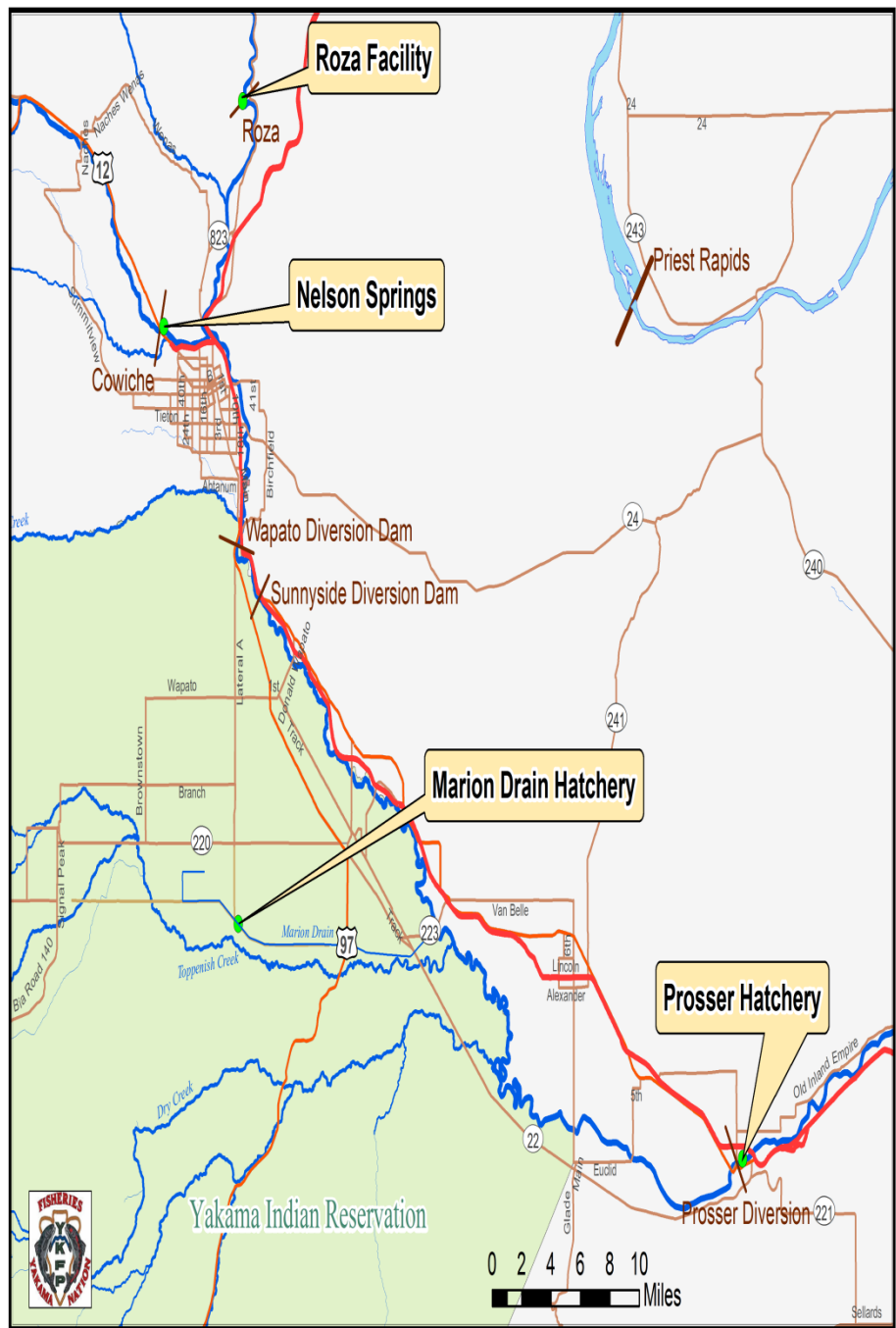


Yearling Adult SI to McNary

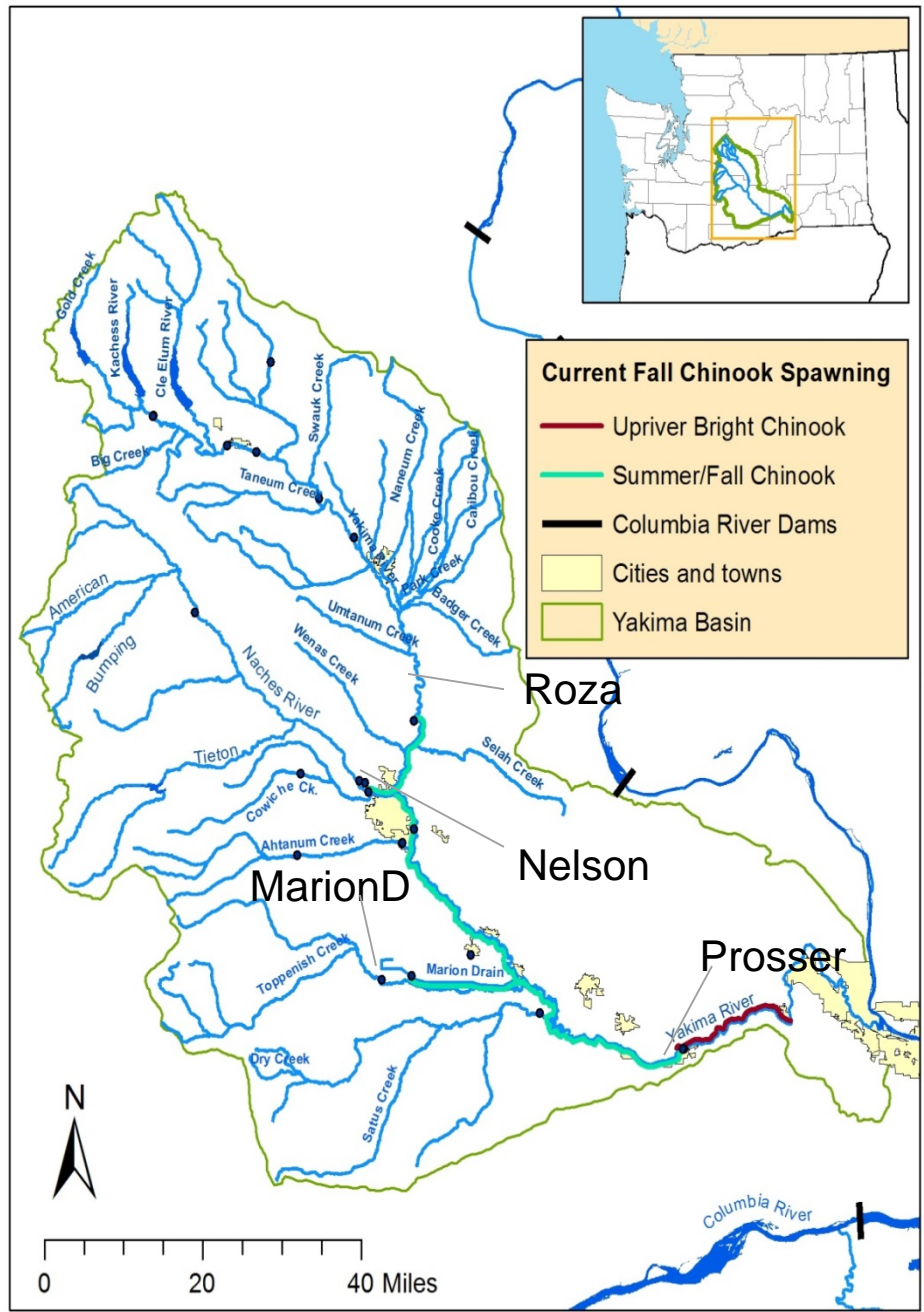




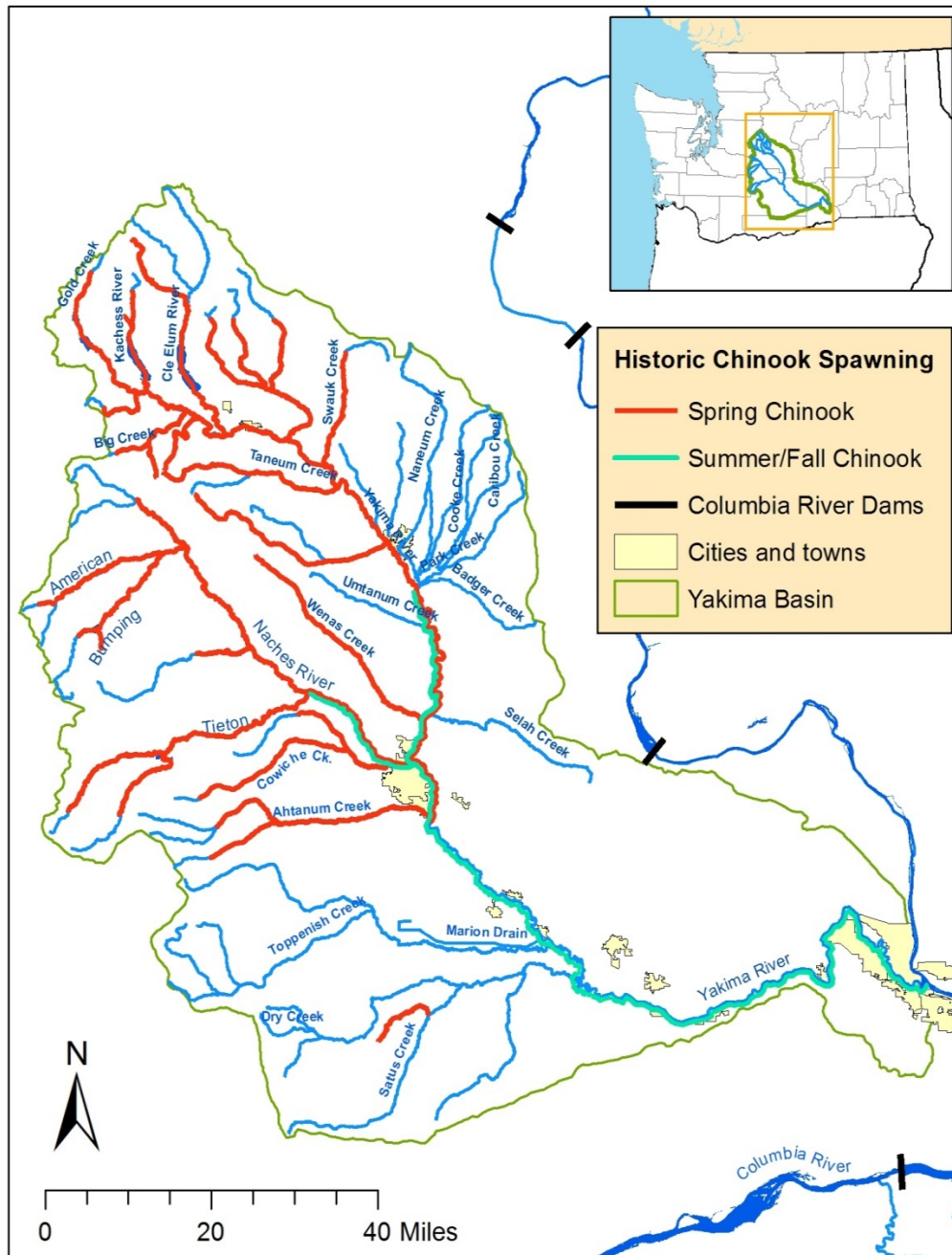




Paul Huffman, Yakama Nation Fisheries, 3/08/2013 C:\avdata\subbasins\yak\fallchinook\stc2.mxd



C:\avdata\cohochinook\MP\currentchinook.mxd 3/23/2012 Paul Huffman, Yakama Fisheries



2012 Redd Surveys above Prosser

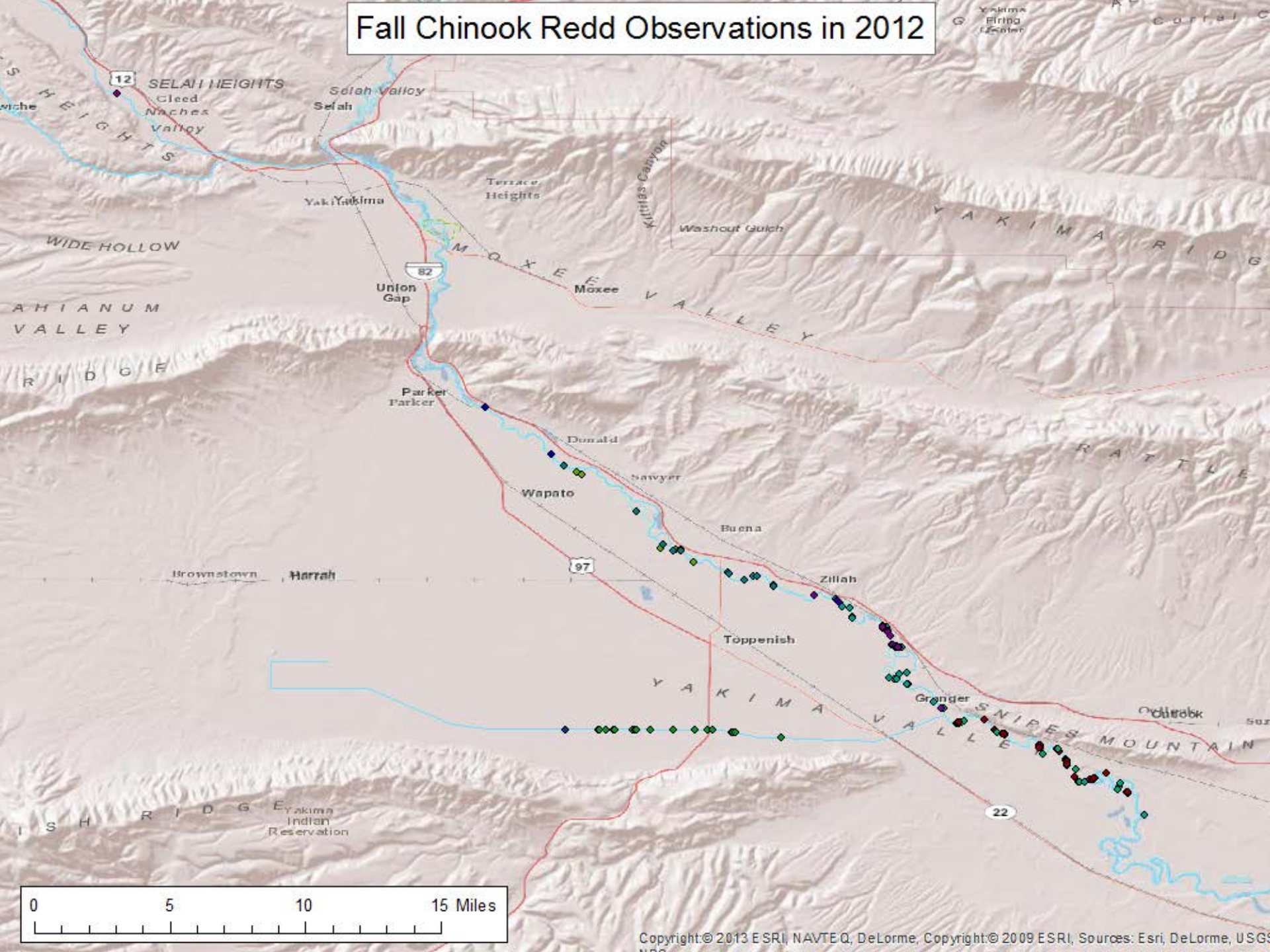
4,493 Adults over Prosser Dam

Yakima River- 261 Redds

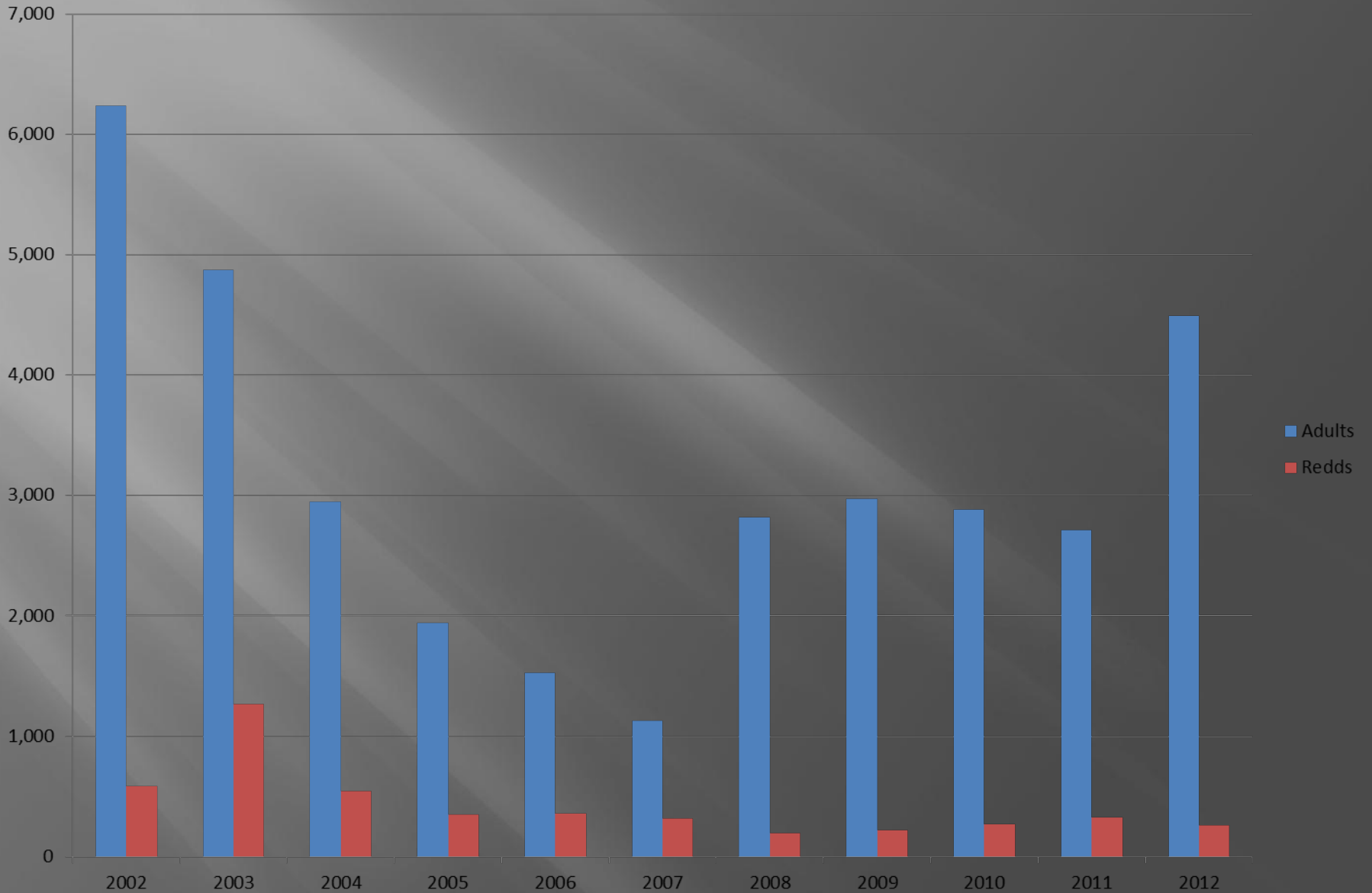
Naches River- 1 Redds



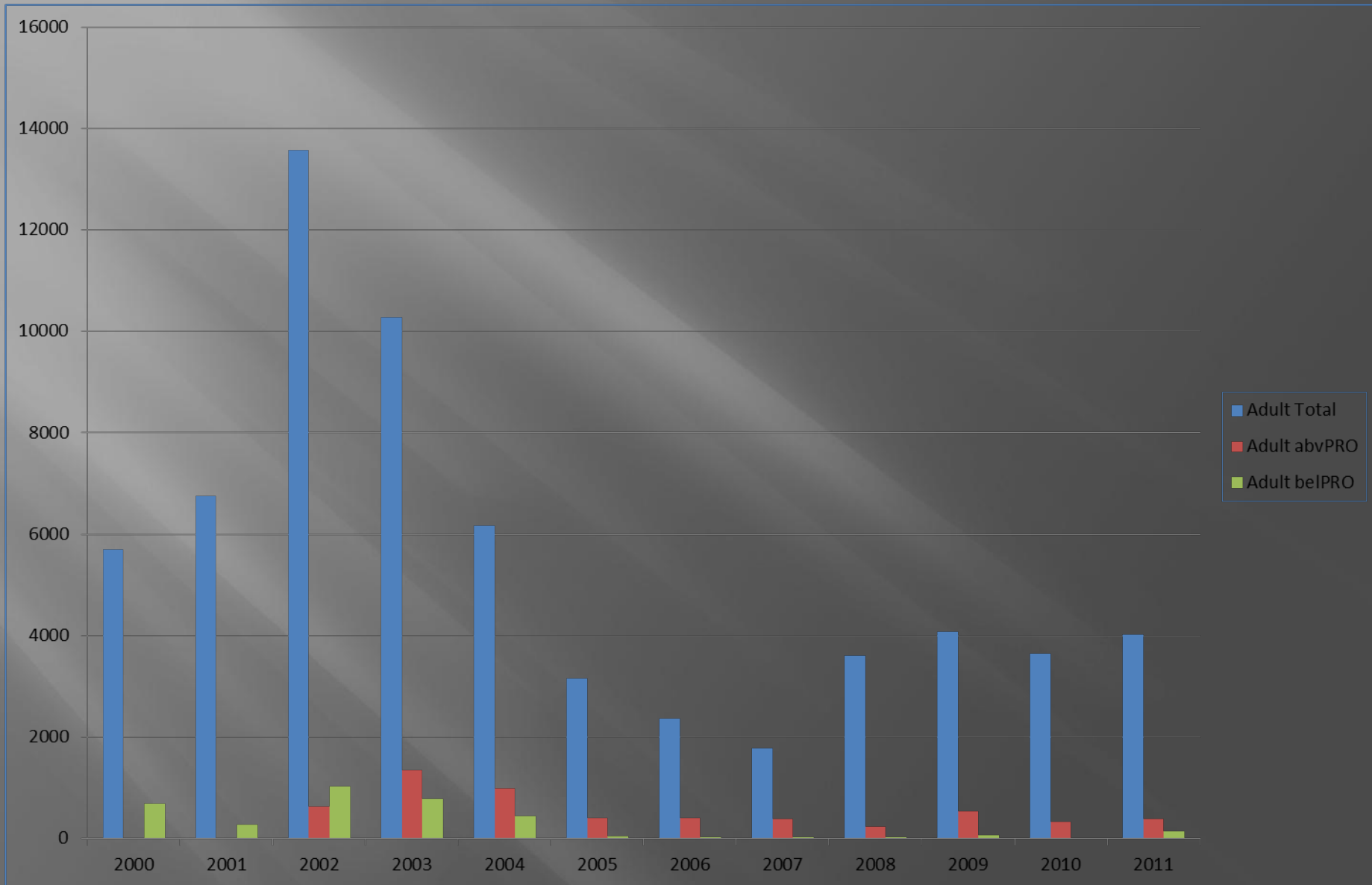
Fall Chinook Redd Observations in 2012



Above Prosser Counts



Total Counts above and below Prosser



Marion Drain Redds 2001-12



Summer Chinook in the Yakima Basin?

Re-Establishing Summer Chinook in the Yakima River

- **Objective:** To initiate investigation of the feasibility of establishing an early-run fall Chinook population in the Yakima River, with the goals being to:
 - 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.



Noooooo!

The Yakima River said “Good-Bye” to the last of Summer Chinook in the 1970s...

MOTION POST-ALARM

Yes!

AND “Hello!” to the FIRST to return over Prosser on 7/16/11.

2008 Stiles release observed at Prosser 7/16/11

C03 2011/07/16-04:17:18

WDFW Wells Hatchery



YN Marion Drain Hatchery

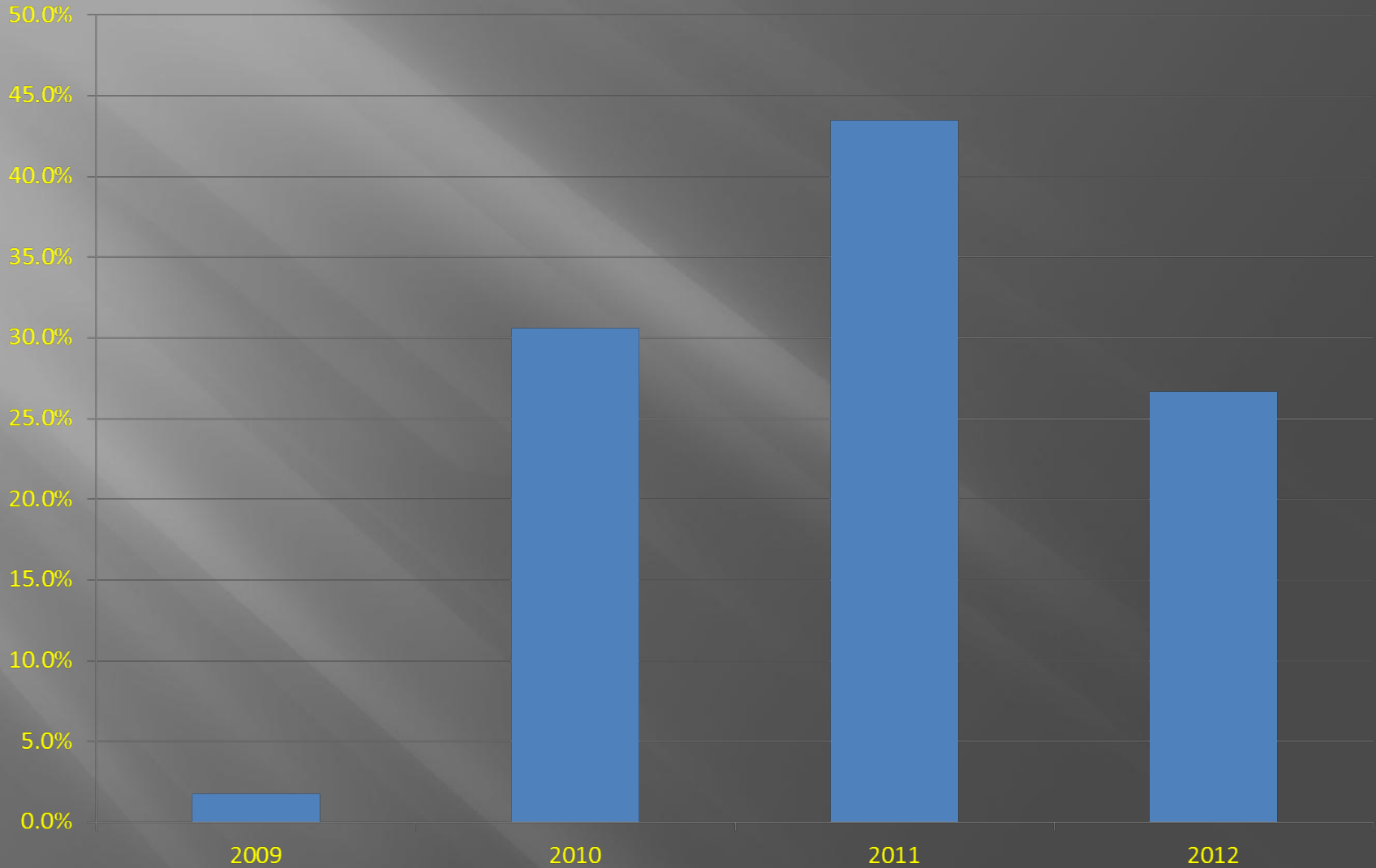


Summer Chinook Releases 2009-2013

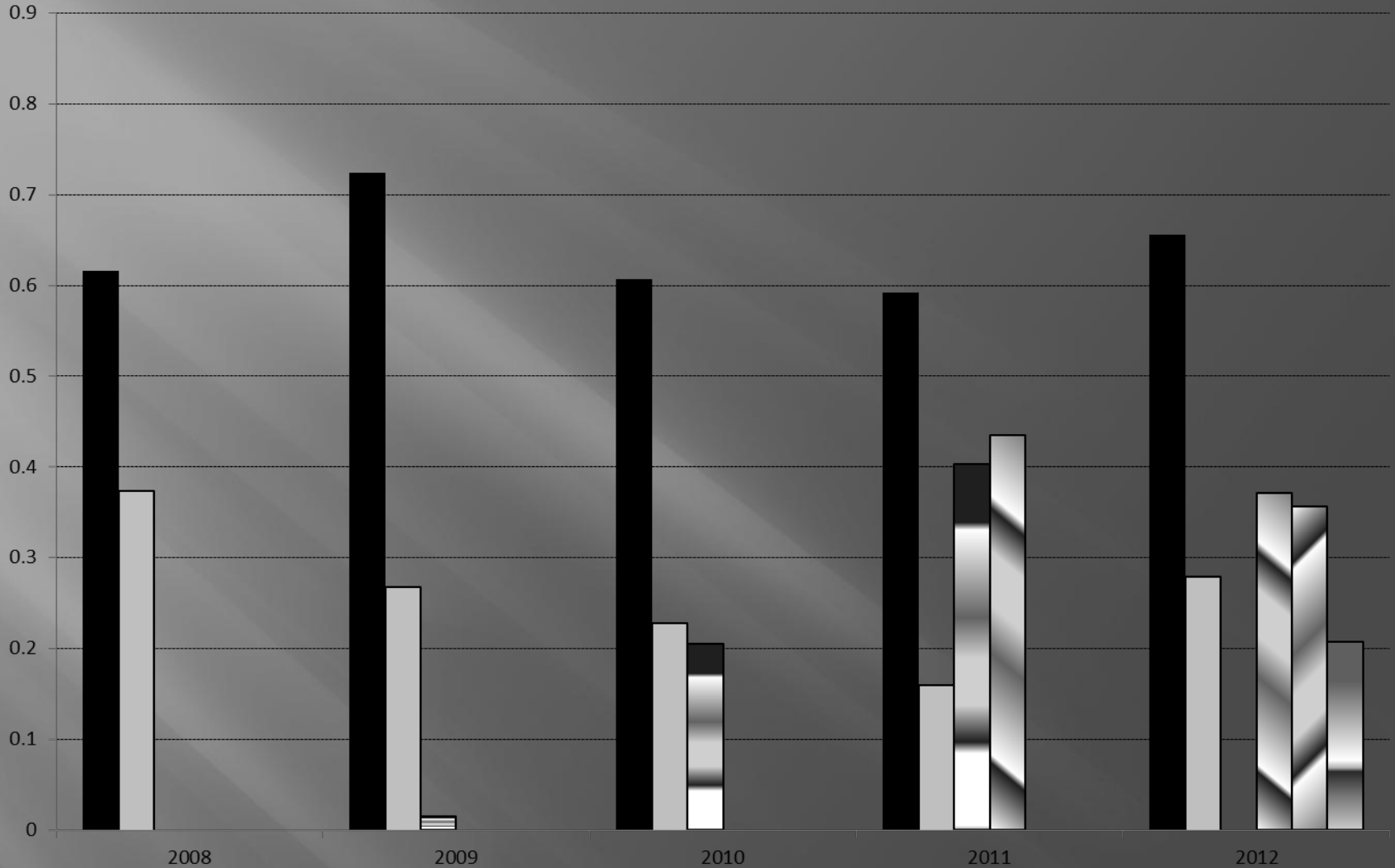
AcclimationSite	BY	N	Release	#PITs	SI
Stiles	2008	180,911	6/12/2009	30,045	0.018
Stiles	2009	200,747	5/14/2010	29,997	0.306
MarionD	2010	39,406	4/29/2011	29,893	0.435
Stiles(Wenn)		76,357	5/16/2011		
Stiles(Wenn)		101,000	5/16/2011		
Prosser	2011	98,300	5/14/2012	9,999	0.267
NelsonS		98,801	5/18/2012	9,998	0.370
MarionD		72,258	5/24/2012	9,999	0.357
NelsonS	2012	45,652	5/15/2013	15,063	
NelsonS		42,556	6/1/2013	10,053	
Roza		48,355	5/29/2013	15,087	

*Total Summers Released 2009-2013 1,004, 343

Smolt-to-Smolt SI to McNary



Time-of-Tagging-to-McNary Survival of Tagged Smolt



■ Fall - Yearling

□ Fall - Subyearling

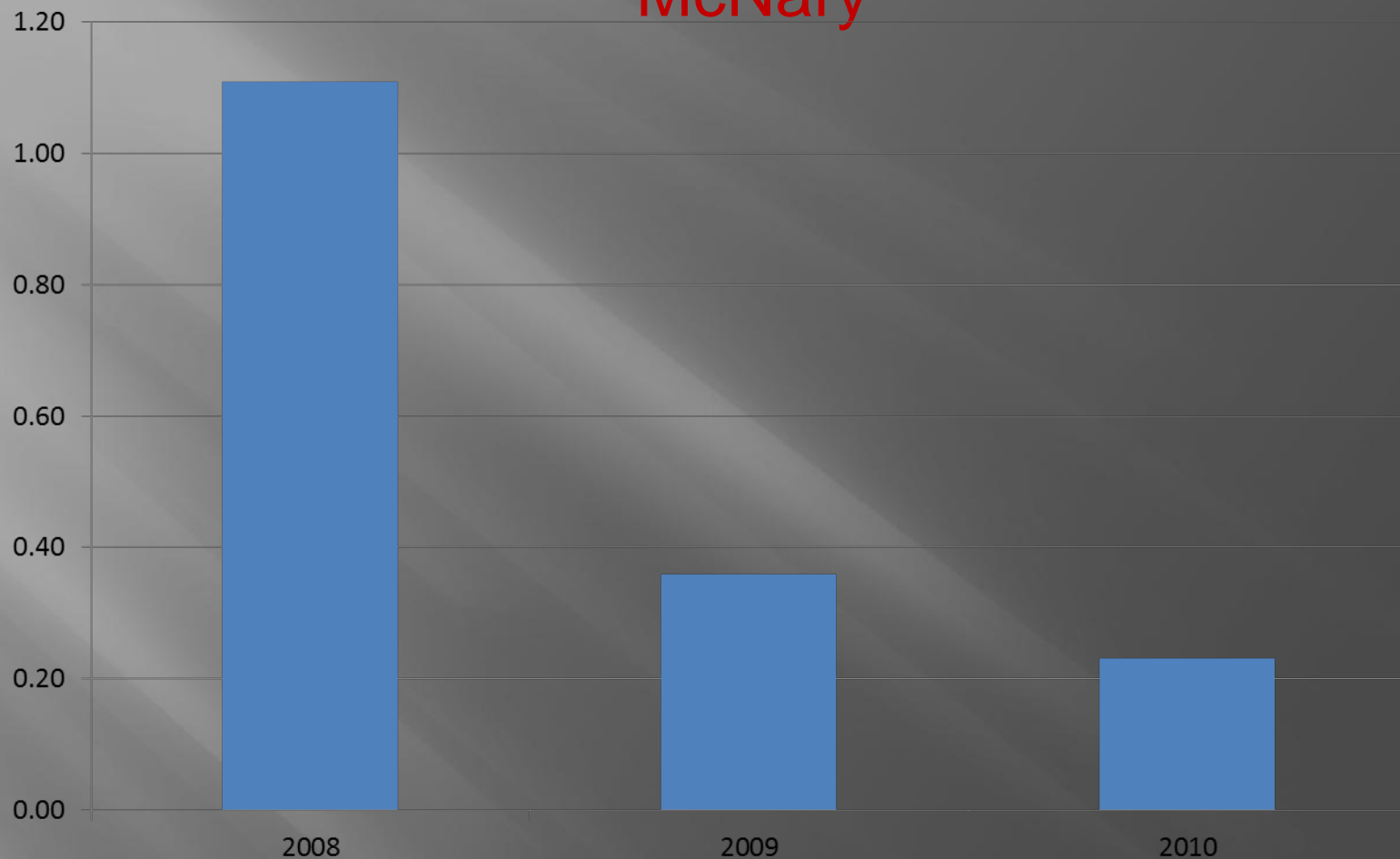
▨ Summer - Stiles

▧ Summer - Buckskin

▩ Summer - Marion

▪ Summer - Prosser

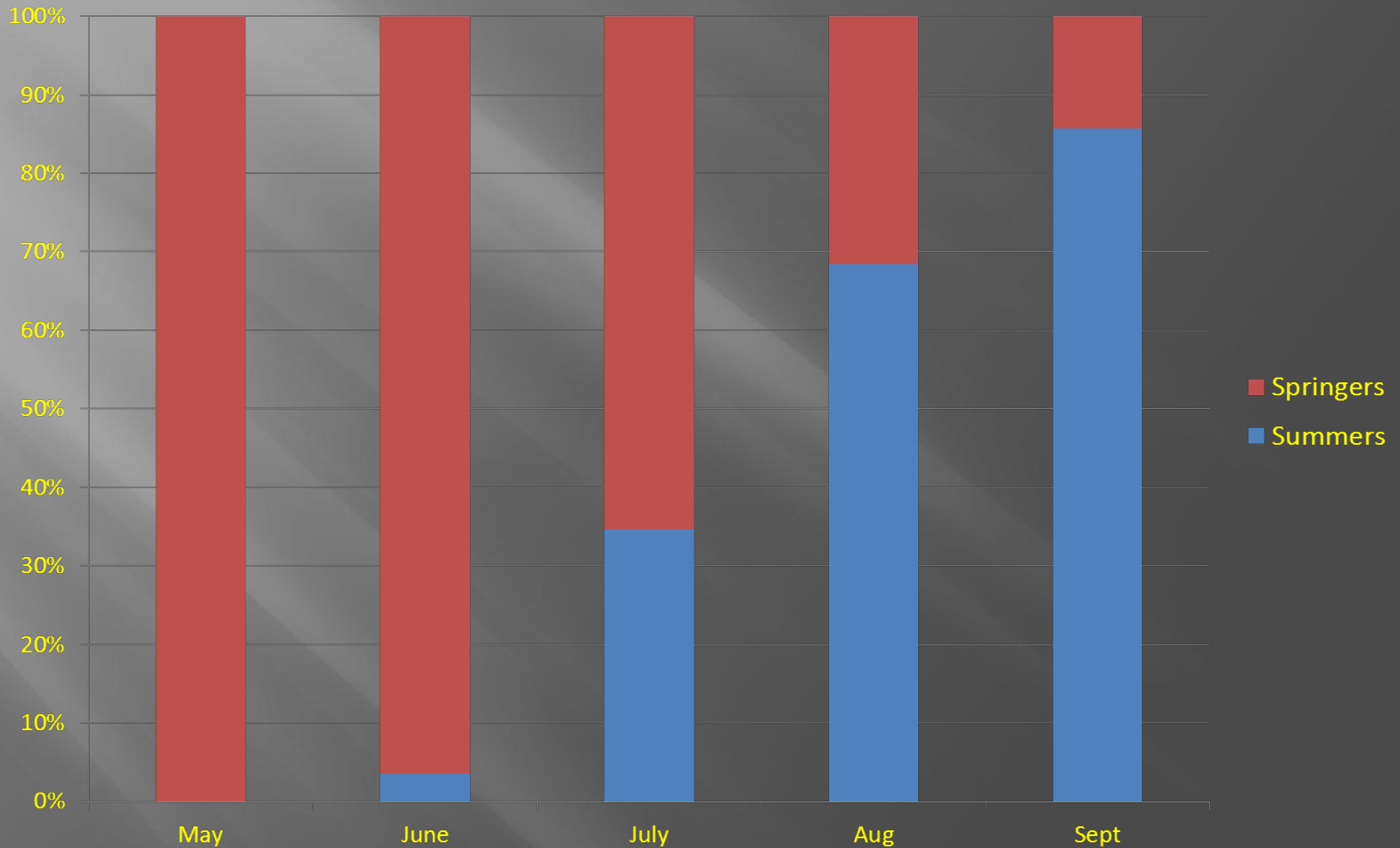
Summer Chinook BY2008-2010 adult SI to McNary

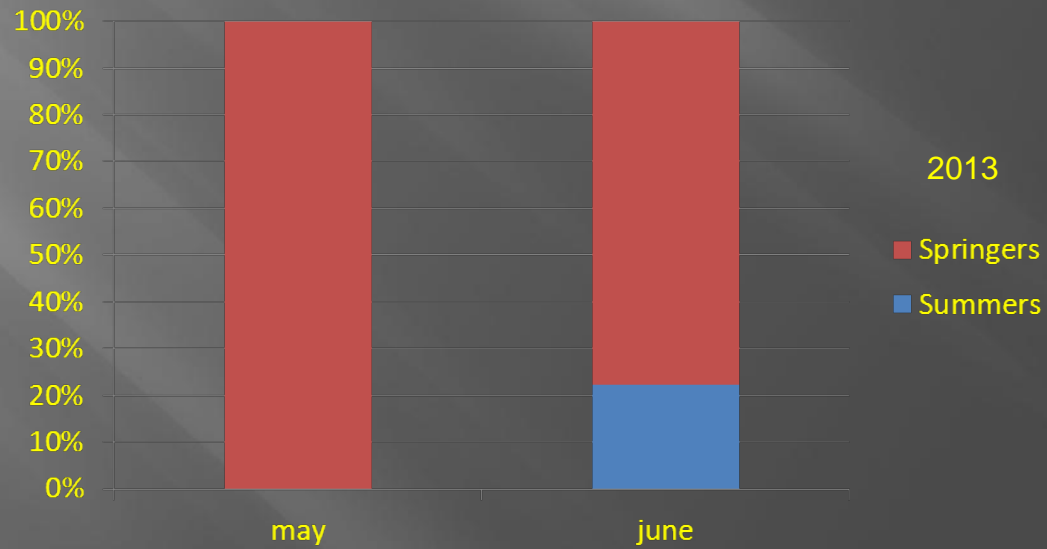
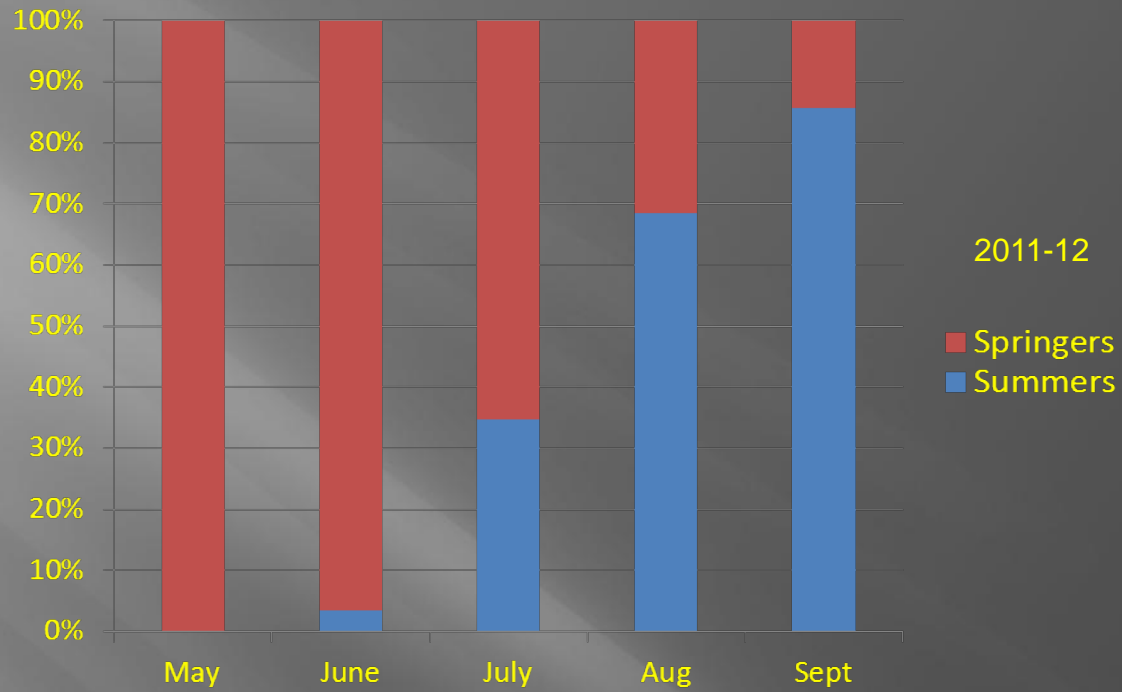


*2013 final adult counts pending run duration

BY2008 complete
BY2009 complete 2014
BY2010 complete 2015
*assumes upper age to 5 yrs as complete

Timing: Spring vs Summer 2011-12







Prosser Dam Left
Ladder Window

SUMMER
observed 6/1/13
1:15pm



SPRINGER
observed 6/1/13
1:24pm

* Both Pit Tagged

2013-14 Plans on-going

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

2014-15 Future Plans

- Additional raceways at both Roza and Nelson.
- Radio Tag Summer Chinook.
- Establish additional summer chinook mobile acclimation sites for use in the Yakima River above Union Gap, or the lower Naches River.
- Continue searching for an acclimation site in the lower river below Wanawish Dam (Horn Rapids) for out-of-basin fall chinook.

Acknowledgements

Fall Chinook/Coho: Andrew Lewis, Gene Sutterlicht Jr., Joe Jay Pinkham III, Quincy Wallahee and Conan Northwind. Assisted by Markeyta Pinkham, Oona Dittentholer who carried out the daily field activities.

Prosser and Marion Drain Hatchery: Joe Blodgett, Michael Fiander and the Hatchery crews

YN: Mel Sampson, Dave Fast, Mark Johnston, Todd Newsome, Bill Bosch, Dave Lind, Doug Neeley, Bill Fiander and Ida Sohappy-Ike

Chandler Juvenile Monitoring Facility: Leroy Senator, Wayne Smartlowit, Morales Ganuelas and the rest of the crew.

Yakama Nation Museum: Parker Dam and Salmon photos.

WDFW Wells Hatchery.

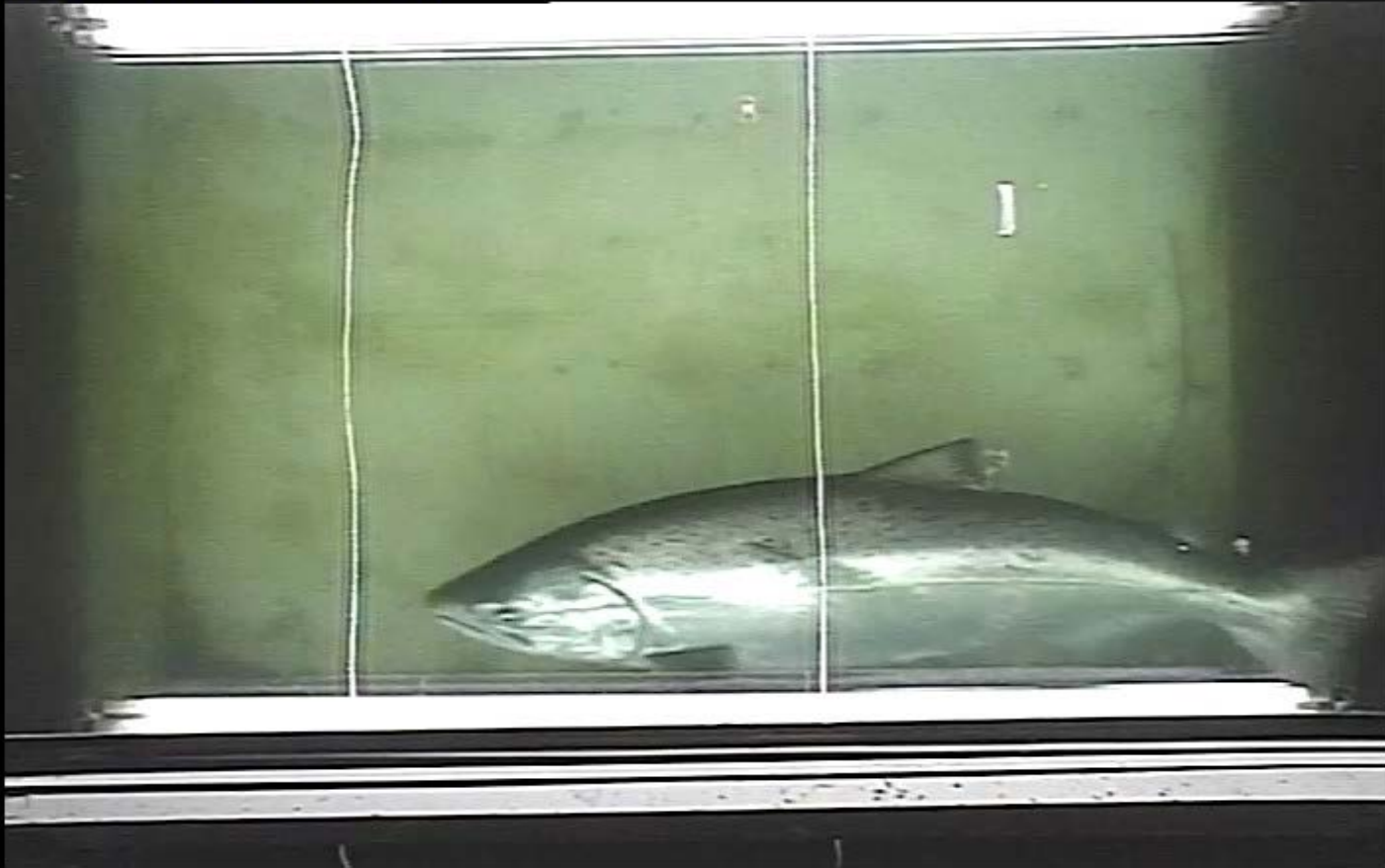
USFWS Fish Health.

BIG THANKS TO EACH OF YOU!

This project is funded by the Bonneville Power Administration and is administered through Patty Smith.

QUESTIONS?

[Prosser DVR]CH03-CH3 5/29/2013 12:28:42 PM



1st PIT tagged 2013 Summer 5/29/13! Chinook over Prosser

BY2009, Naches R, Stiles pond release 5/14/10