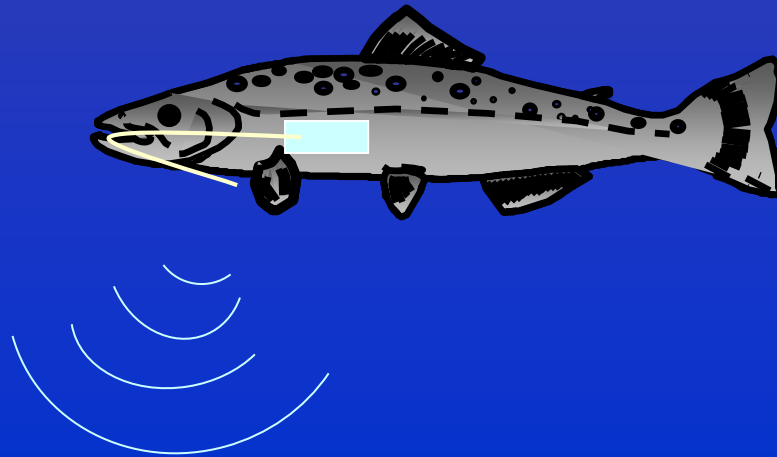


2008 Coho Juvenile Migration and Radio Tracking Distribution Phase II

Presented By:

Todd Newsome

Fisheries Biologist for the Yakama Nation

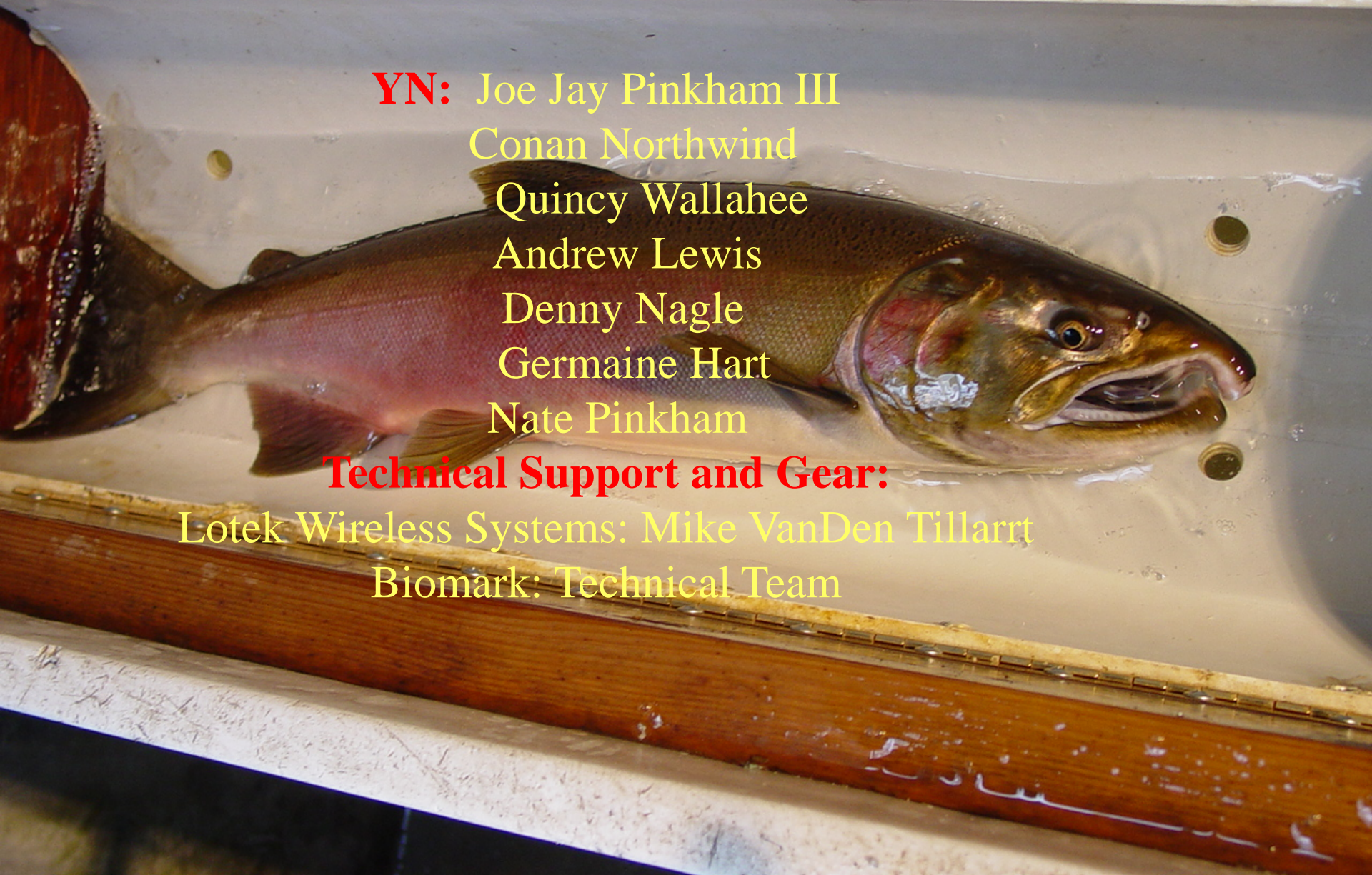


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Lotek Wireless Systems: Mike VanDen Tillarrt
Biomark: Technical Team



Background



Program Goal - Re-establish self-sustaining naturally spawning population of coho salmon in Yakima River

Phase I: 1999-2003



Feasibility **Interim Work: 2004-2006**



Phase II: 2007-2011

Maximize Potential for Success -

Smolts

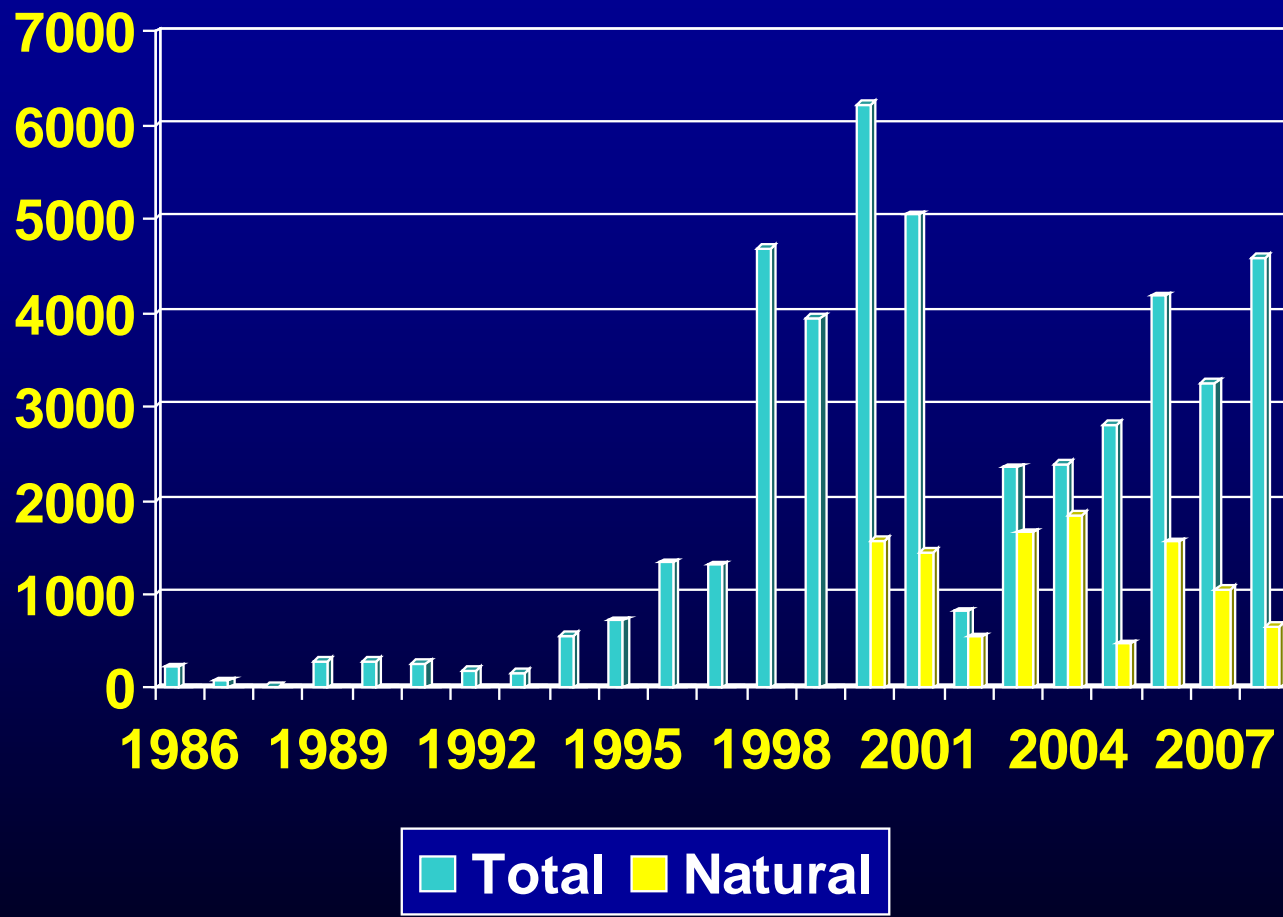


Adults



Isolating and reducing mortality through life stages

Upper Yakima Coho Returns, 1986 – 2008



2008 Hatchery Coho Juvenile Acclimation Sites Yakima Basin

Volitional Release, April 3, 2008

Boone: 39,726

Holmes: 227,793

Lost Creek, 231,674

Stiles, 185,079

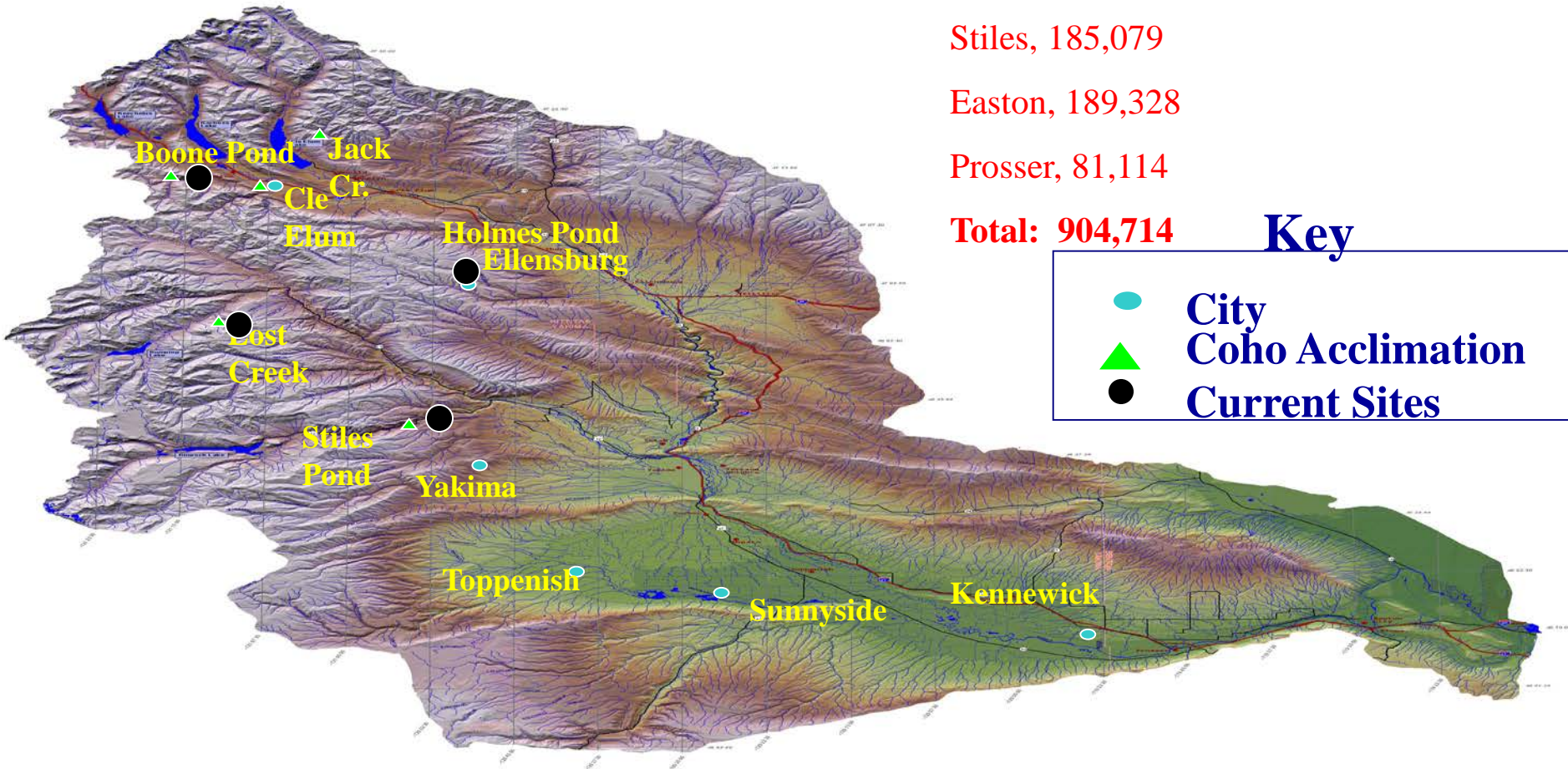
Easton, 189,328

Prosser, 81,114

Total: 904,714

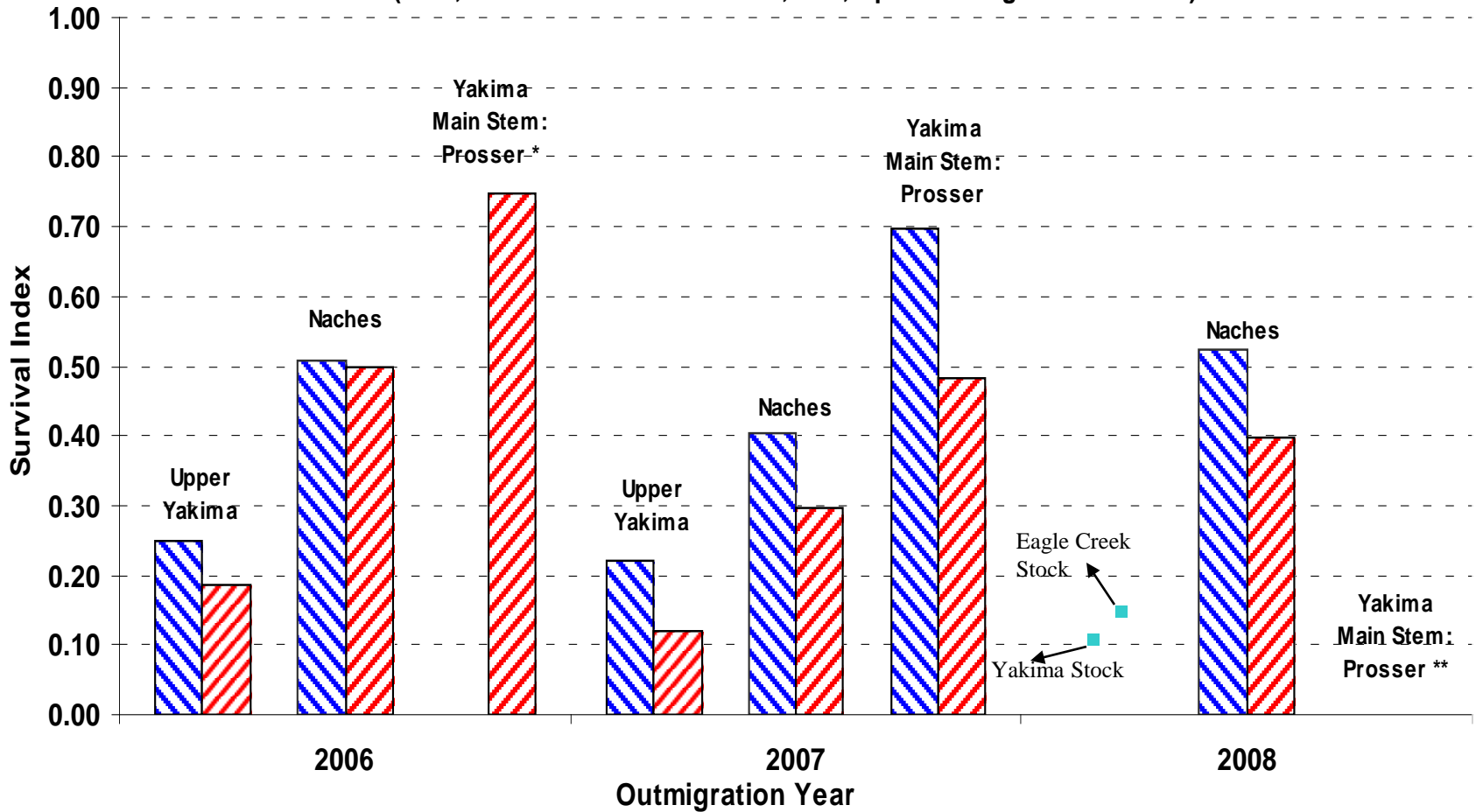
Key

-  City
-  Coho Acclimation
-  Current Sites



Coho Volitional Release to McNary Survival

Coho Early-Release: Release-to-McNary Smolt Survival
 (Blue, Downward - Yakima Stock; Red, Upward - Eagle Creek Stock)

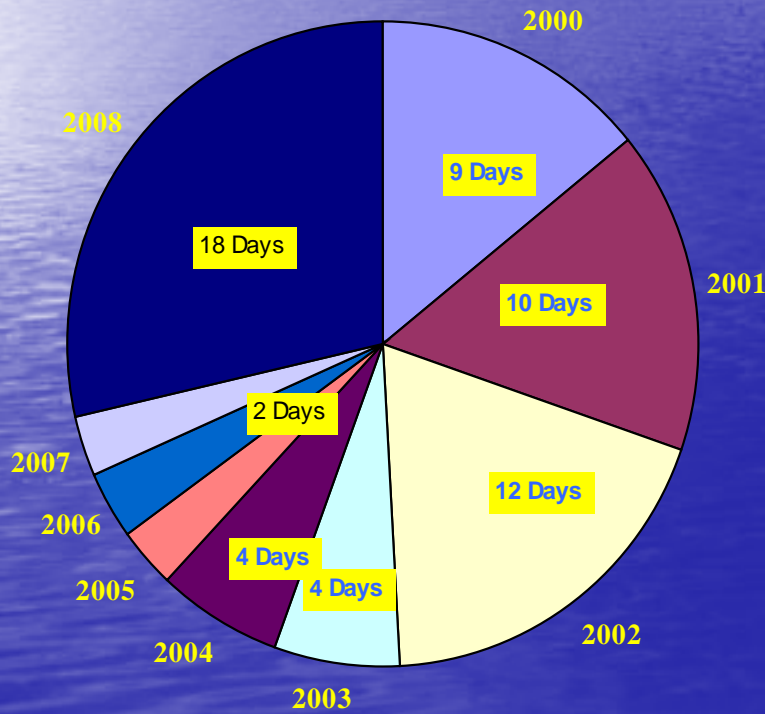


* Outmigration Year 2006, Only Eagle Creek Stock released at Prosser

** Outmigration Year 2008. Only Eagle Creek Stock released at Prosser but Pond Detections were too few for meaningful Estimates

50% Passage, Natural vs. Hatchery

2nd Step in Isolating and reducing possible mortality (Timing)



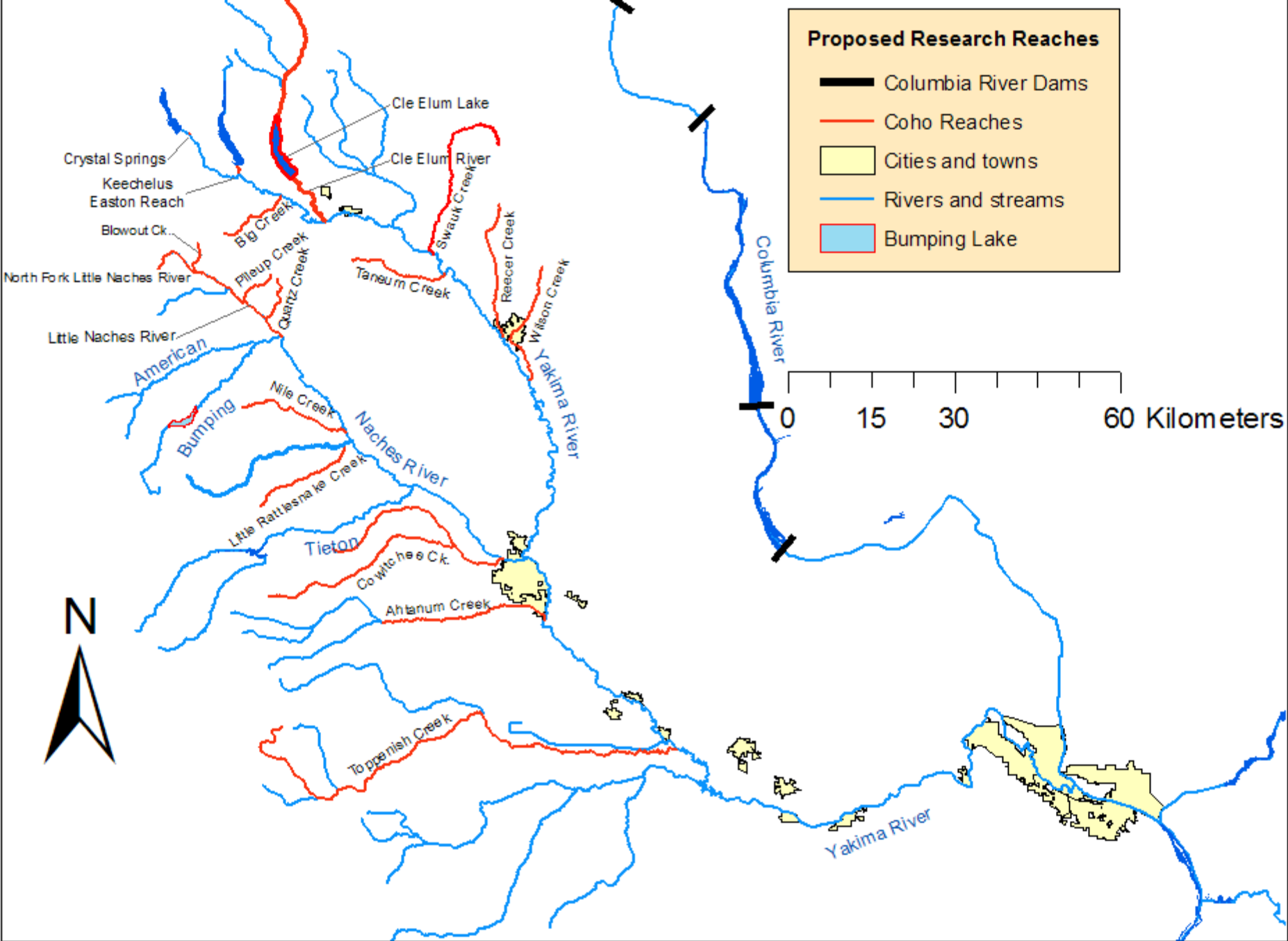
	Wild	Hatchery
2000	05/26/00	06/04/00
2001	05/31/01	06/09/01
2002	05/04/02	05/16/02
2003	05/18/03	05/21/03
2004	05/10/04	05/14/04
2005	4/28/05	4/30/2005
2006	5/11/06	5/13/06
2007	5/10/07	5/12/07
2008	5/30/08	5/11/08

Phase II (2007-2011)

- Objectives
 - Identify Key Tributaries offering the highest potential for Coho Reestablishment
 - Evaluate interactions with resident and anadromous fish already residing in tributaries
 - Increase the resiliency, and robustness of the Coho population in the Yakima Basin

ACTION

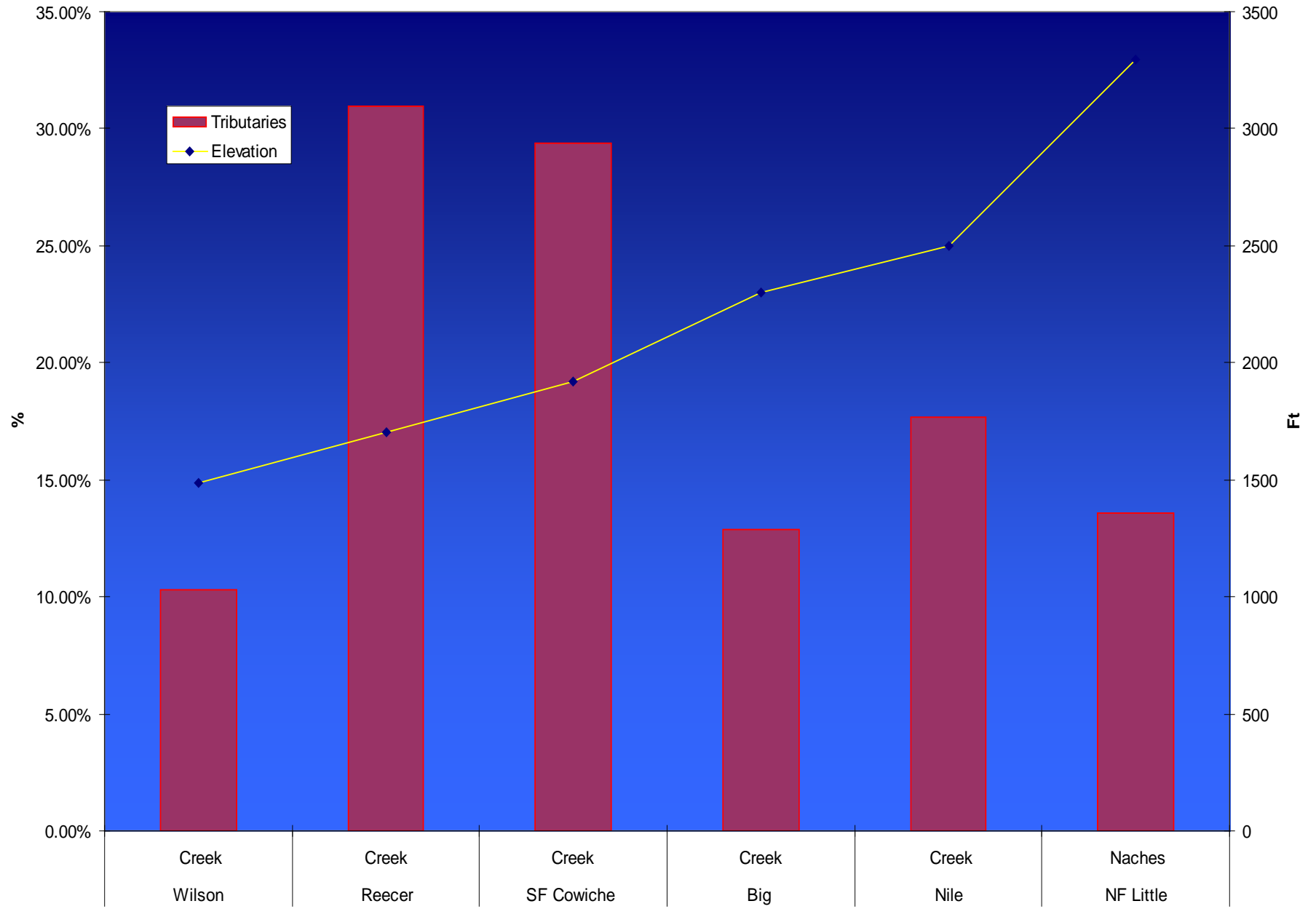
- Monitor Tributary Parr Releases
- Monitor Tributary Adults Releases
- Continue In Basin Brood Stock Development
- New Smolt Acclimation Areas (spread out the risk and increase survival)



2008 Phase II Parr Plants

- 2007 Parr Releases Survival
 - Nile Creek (Survival 18%)
 - North Fork Little Naches (Survival 14%)
 - South Fork Cowiche Creek (Survival 29%)
 - Reecer Creek (Survival 31%)
 - Wilson Creek (Survival 10%)
 - Big Creek survival (13%)
- 2008 Parr Parr Releases Preliminary Survival
 - Nile Creek (Preliminary 2009 survival 4%)
 - North Fork Little Naches (Preliminary 2009 survival 4%)
 - South Fork Cowiche Creek (Preliminary 2009 survival 10%)
 - Reecer Creek (Preliminary 2009 survival 14%)
 - Wilson Creek (Preliminary 2009 survival 9%)
 - Big Creek (Preliminary 2009 survival 5%)
 - Ahtanum Creek (Preliminary 2009 survival 7%)
 - Little Naches River (Preliminary 2009 survival 5%)
- Interactions monitoring
- Monitoring and Assessment of Adult Coho Escapement and Redd Distribution

2007 Tributary Survival and Elevation



Parr Releases 3,000 Pit tagged Coho per Tributary (70-85mm)





2008 Phase II Adult Outplants

- 2007 Adult Survival
- Adult Releases (Releases conducted last week of October into the week of November 07)
 - Nile Creek (Redds 4)
 - Cowiche Creek (Redds 2)
 - Holmes Cottonwood Gallery (Redds 10)
 - Tanuem Creek (Redds 75)
- 2008 Adult Survival
- Adult Releases (Releases conducted last week of October into the week of November 07)
 - Nile Creek (Upper 10 Redds) (Lower 16 Redds)
 - Cowiche Creek (Upper 11 Redds) Lower 30 Redds)
 - Wilson Creek (No redds found)
 - Tanuem Creek (Redds 50)
- Interactions monitoring
- Monitoring and Assessment of Adult Coho Escapement and Redd Distribution

Adult Out Planting



 **FISHERIES**
YAKAMA NATION

 Washington
Department of
FISH AND
WILDLIFE

Study In Progress

Please Do Not Disturb!

This is a research site designed to evaluate the spawning success of coho salmon and the future interactions of their offspring with other resident fish species. This research is being conducted by the Yakama Nation Fisheries (YN) and the Washington Department of Fish and Wildlife (WDFW).

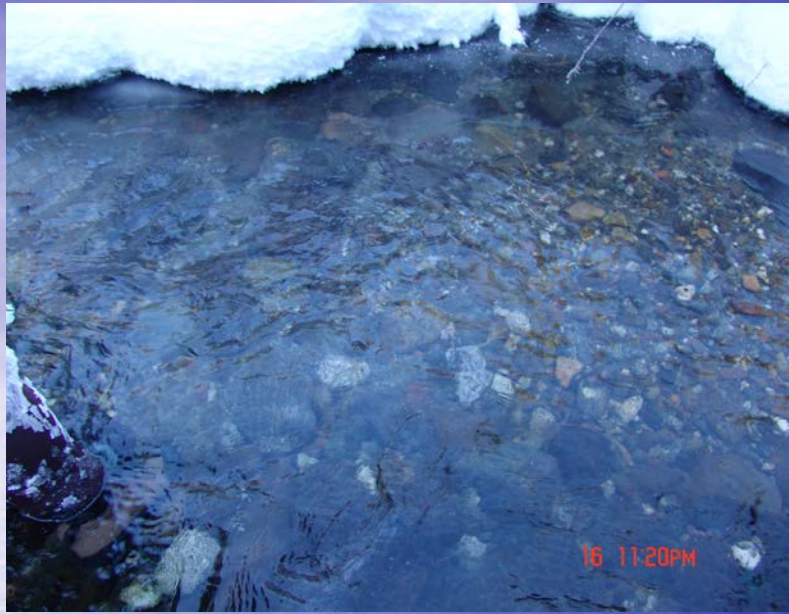
Please do not disturb racks, site, or fish.

NOTE: FISH HAVE BEEN TREATED WITH CHEMICALS AND ARE NOT EDIBLE!

Please direct questions to:
YN: 509-865-6262 Todd Newsome
WDFW: 509-925-4467 ext#4

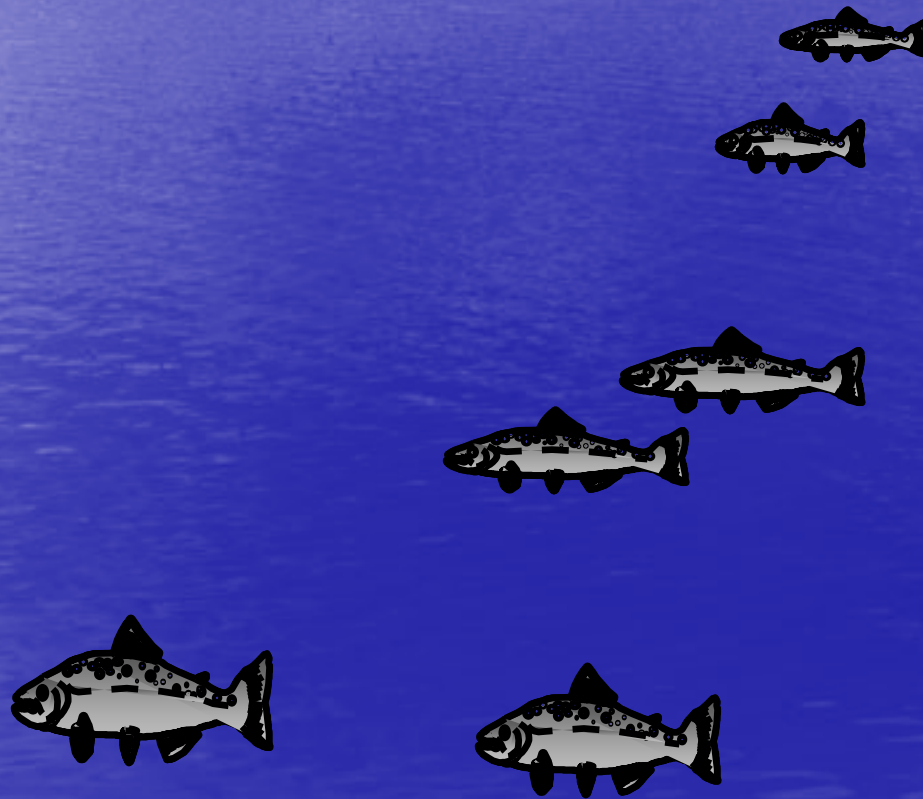
30 10:11PM



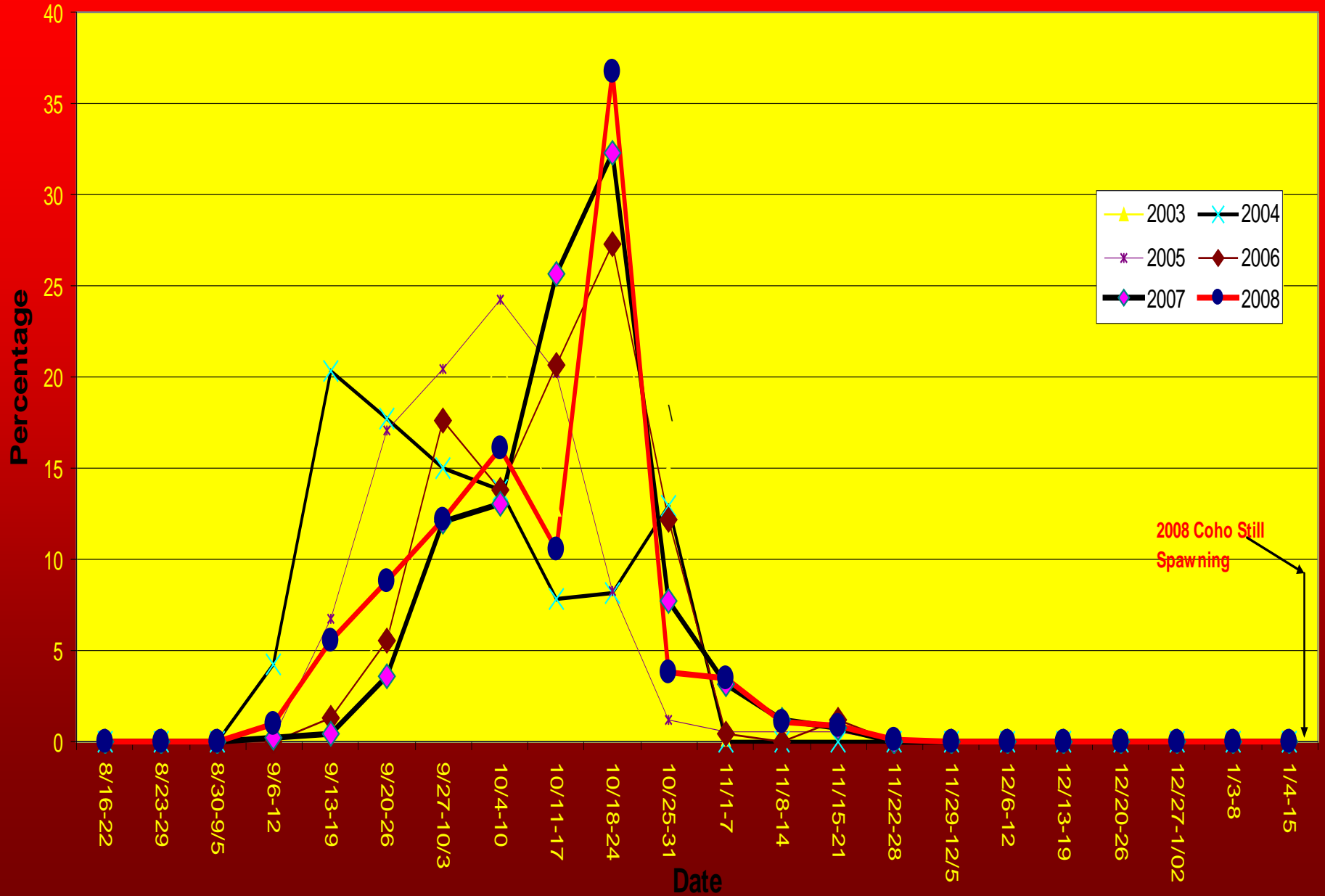




Adult Returns



Adult Coho Denil Passage 2003-2008

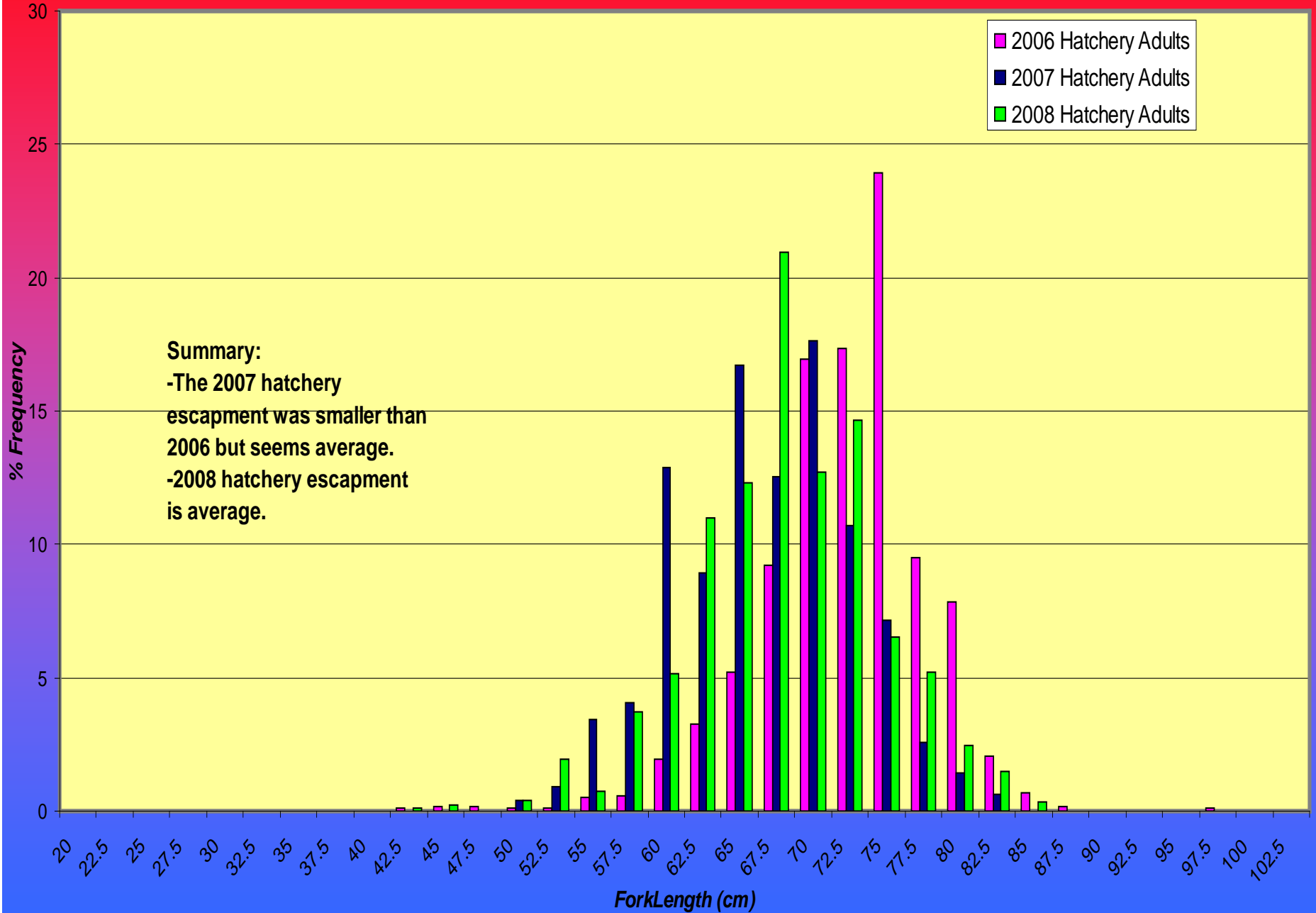


2008 Coho Still Spawning

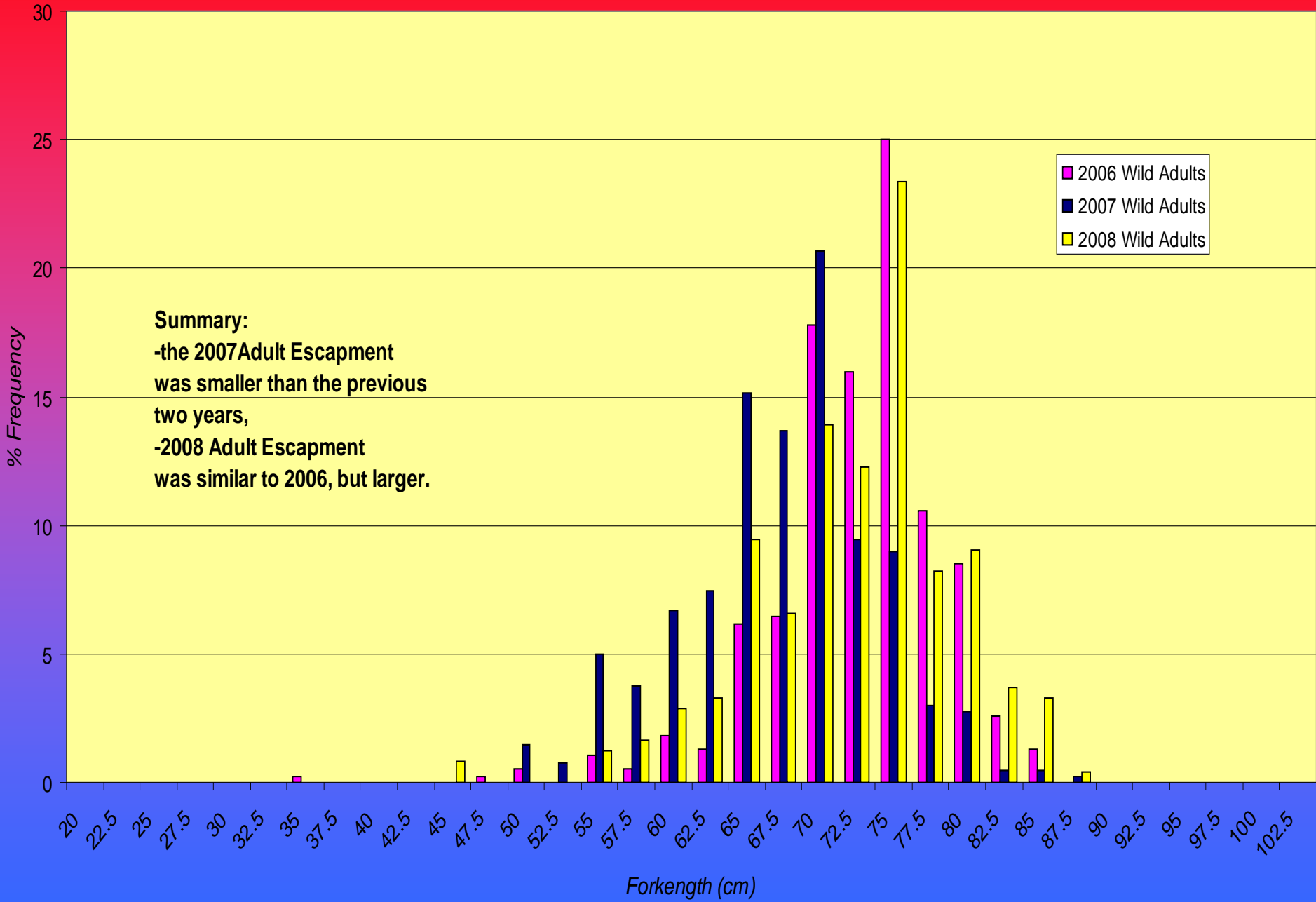
Local In Basin Brood Development

- 149 Females Spawned 100% Wild
- 120 Hatchery Females
- 122 Wild Males crossed with all females
- Estimated egg take of ~800,000
- Estimated 550,000 In Basin Coho for 2009 release.

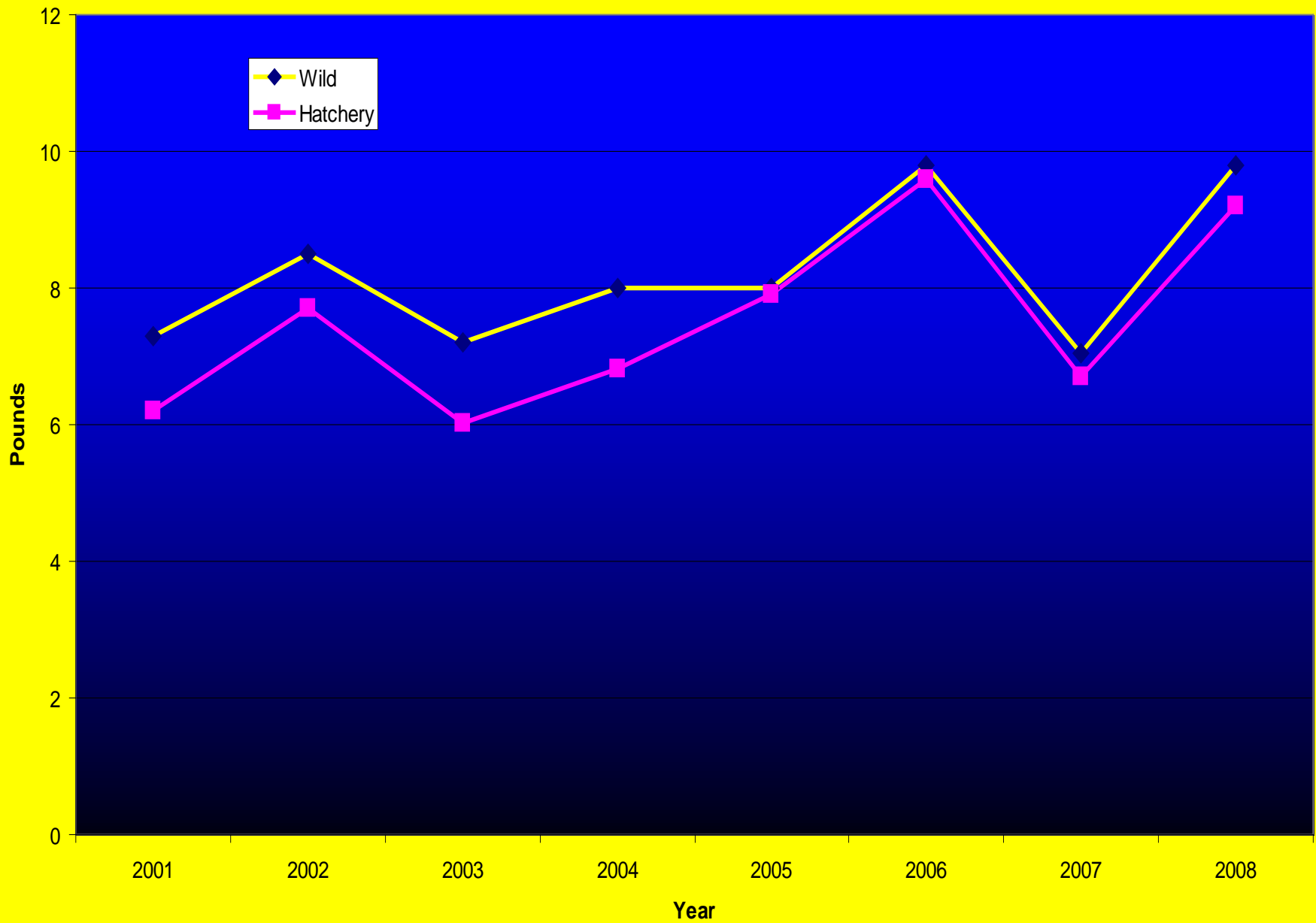
Comparison of 2006 -2008 Hatchery Adult Demographics



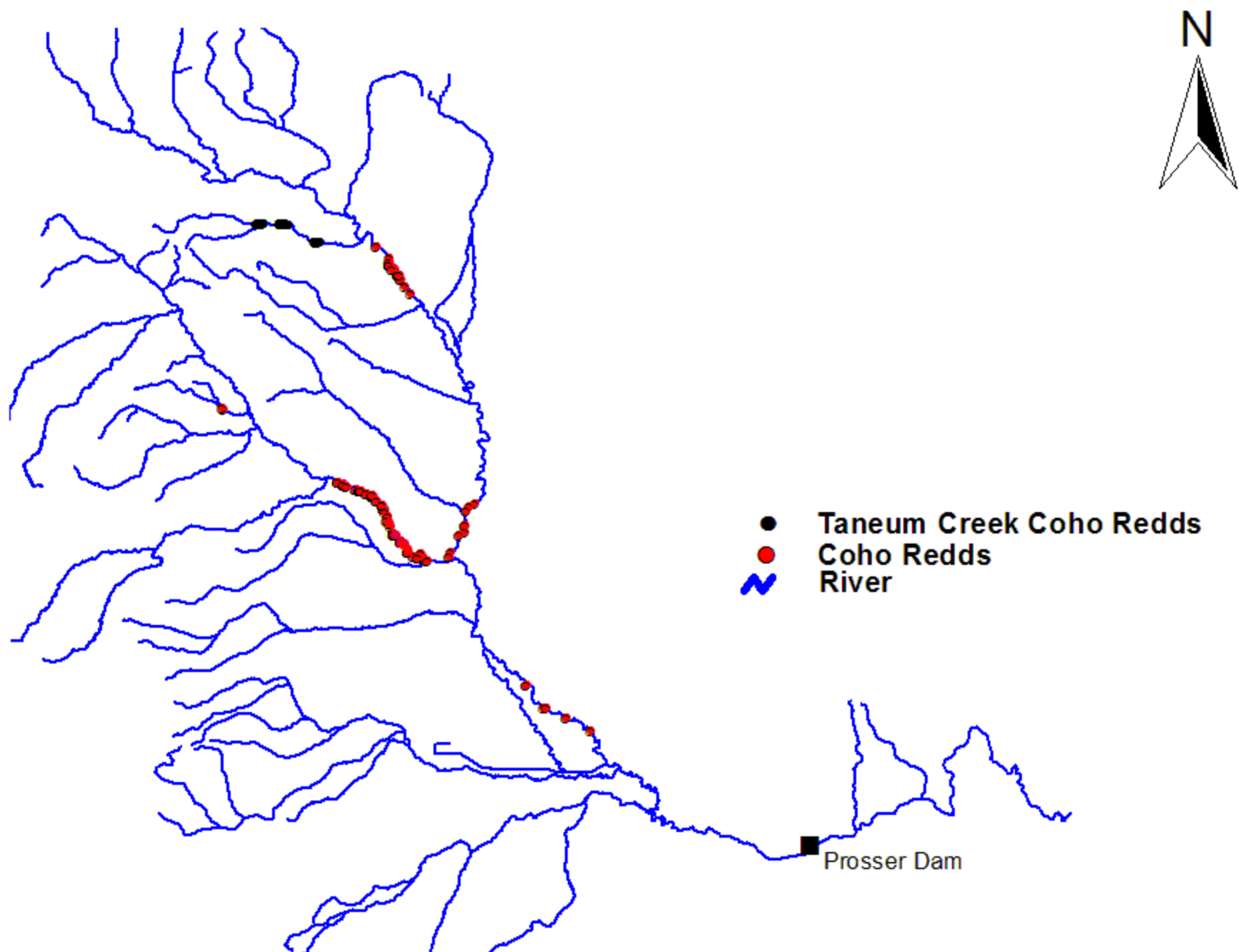
Comparisons of 2006 - 2008 Wild Adult Demographics



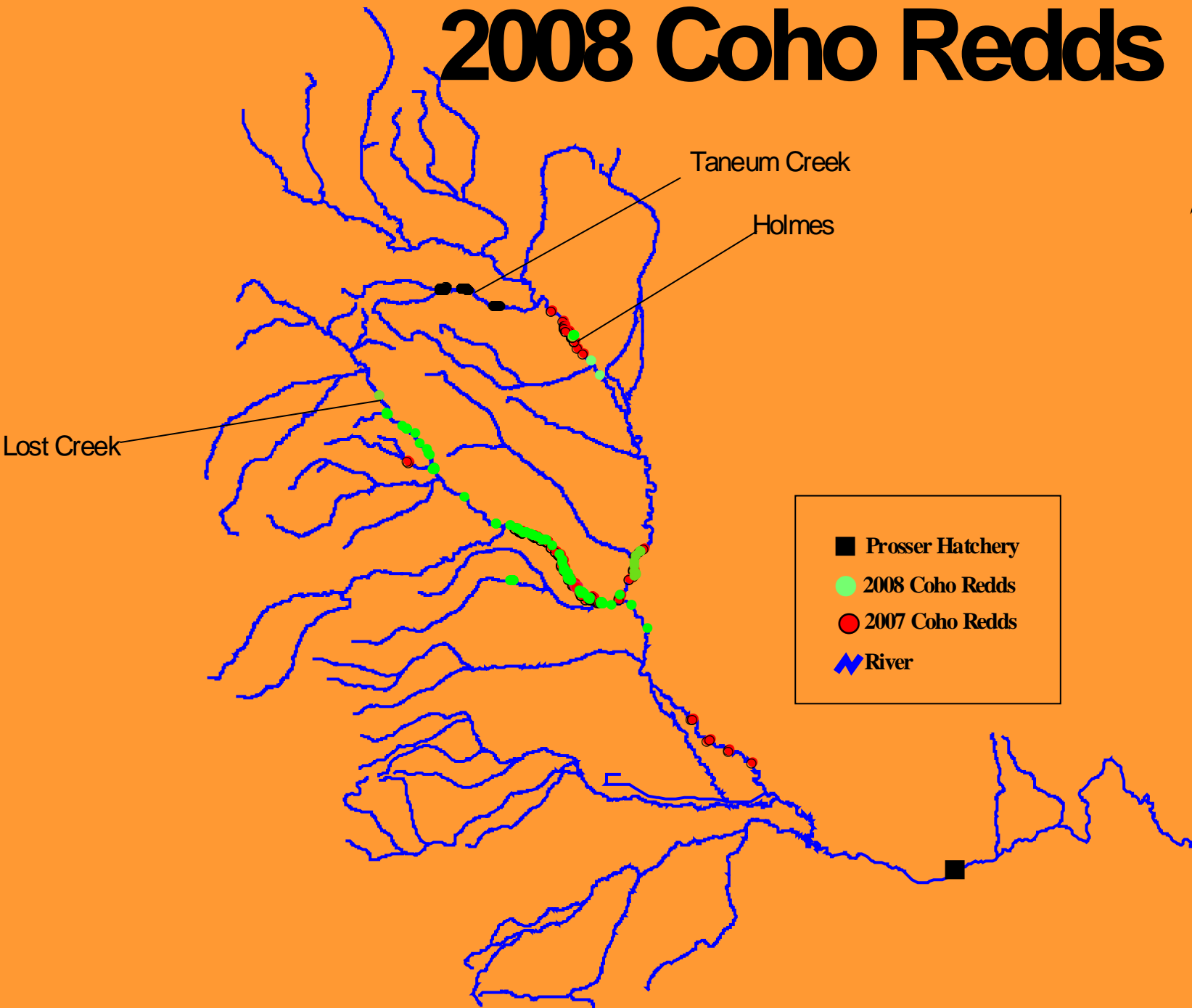
Weight Comparisons



2007 Coho Spawning Distribution

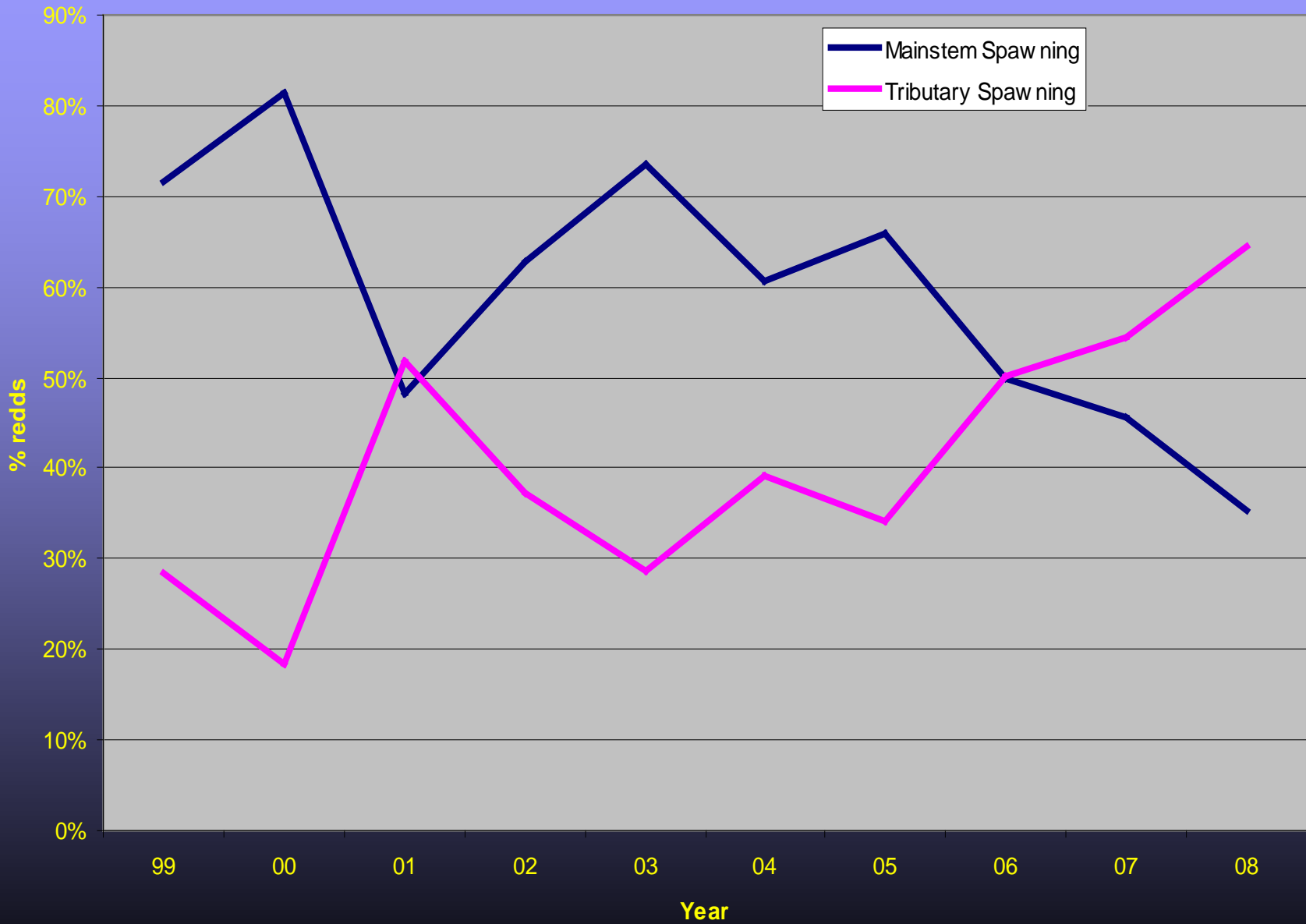


2008 Coho Redds



- Prosser Hatchery
- 2008 Coho Redds
- 2007 Coho Redds
- ▬ River

Mainstem vs. Tributary Spawning



Mobile Acclimation

