2004 Coho Juvenile Migration and Radio Tracking Distribution

Presented By:

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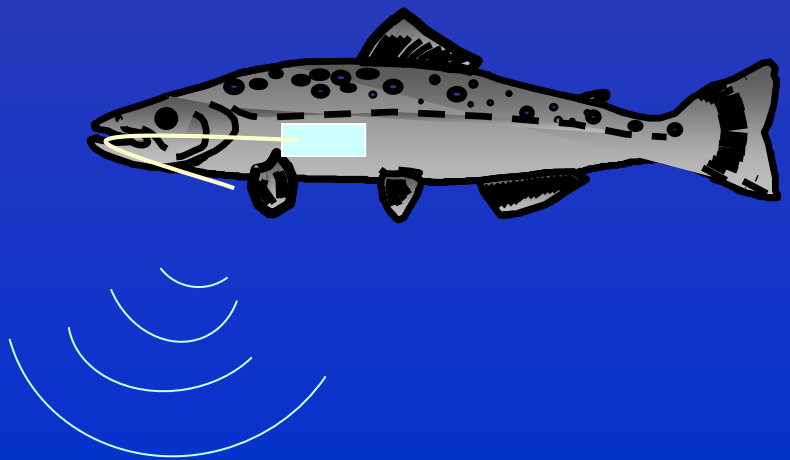


Yakima River Coho Salmon
1998 -2004 Average
Returns=3495

Acknowledgements

YN: Joe Jay Pinkham III
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Background

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

***Phase I*: 1999-2003**

Feasibility

***Phase II*: 2006-2010**

Maximize Potential for Success -

Smolts ⇒

⇐ **Adults**

Isolating and reducing mortality through life stages

2004 Hatchery Coho Juvenile Acclimation Sites Yakima Basin

Volitional Release, April 5, 2004

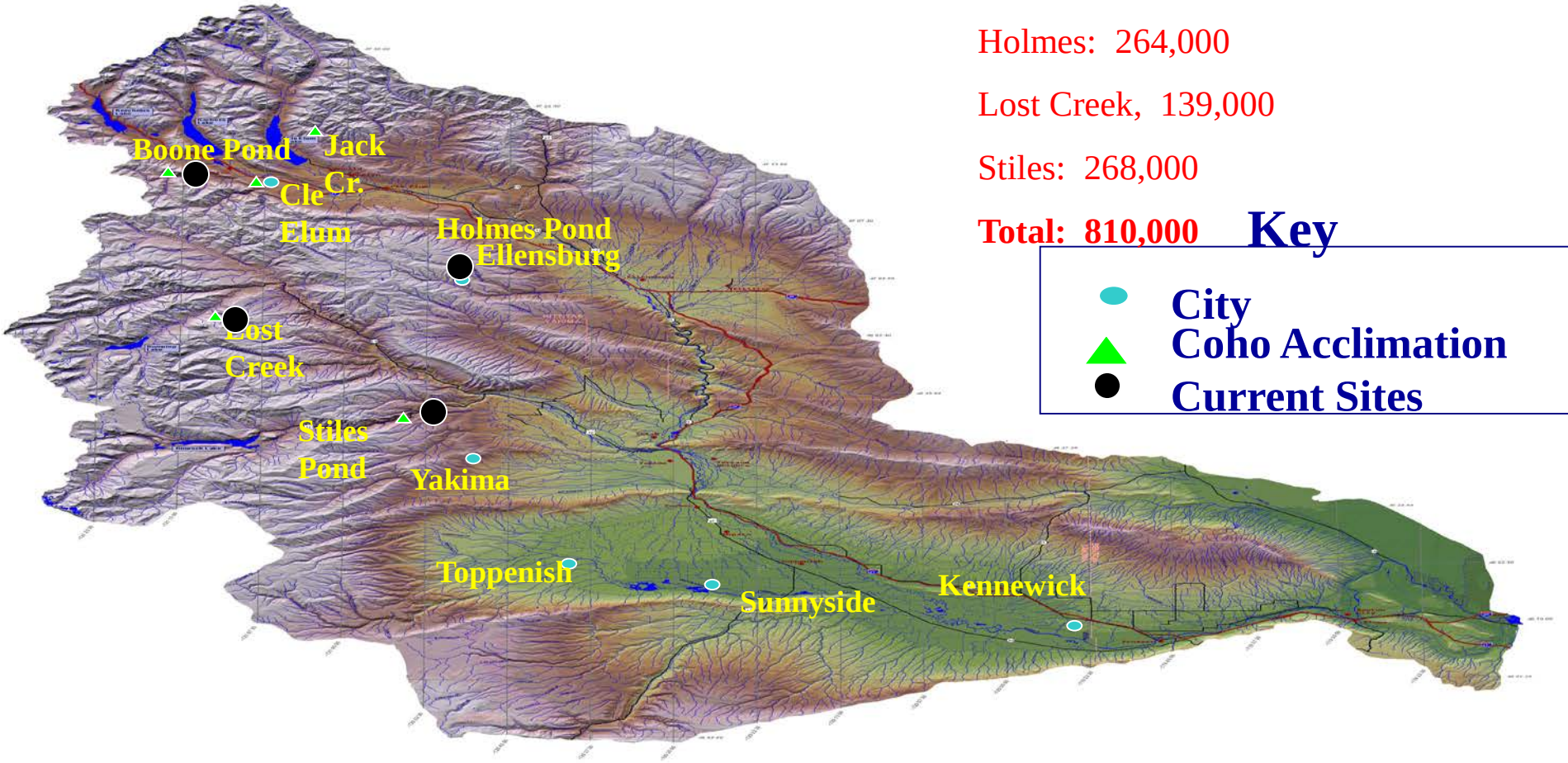
Boone: 139,000

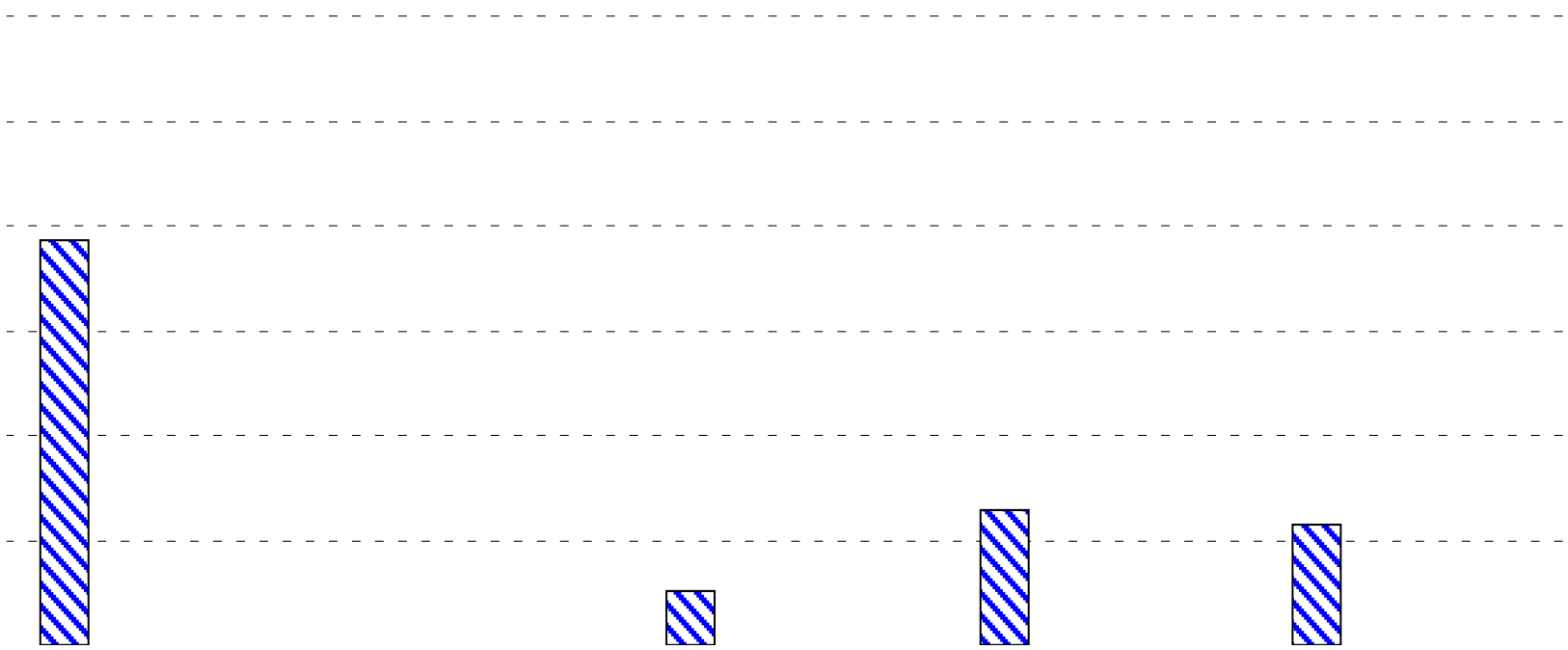
Holmes: 264,000

Lost Creek, 139,000

Stiles: 268,000

Total: 810,000



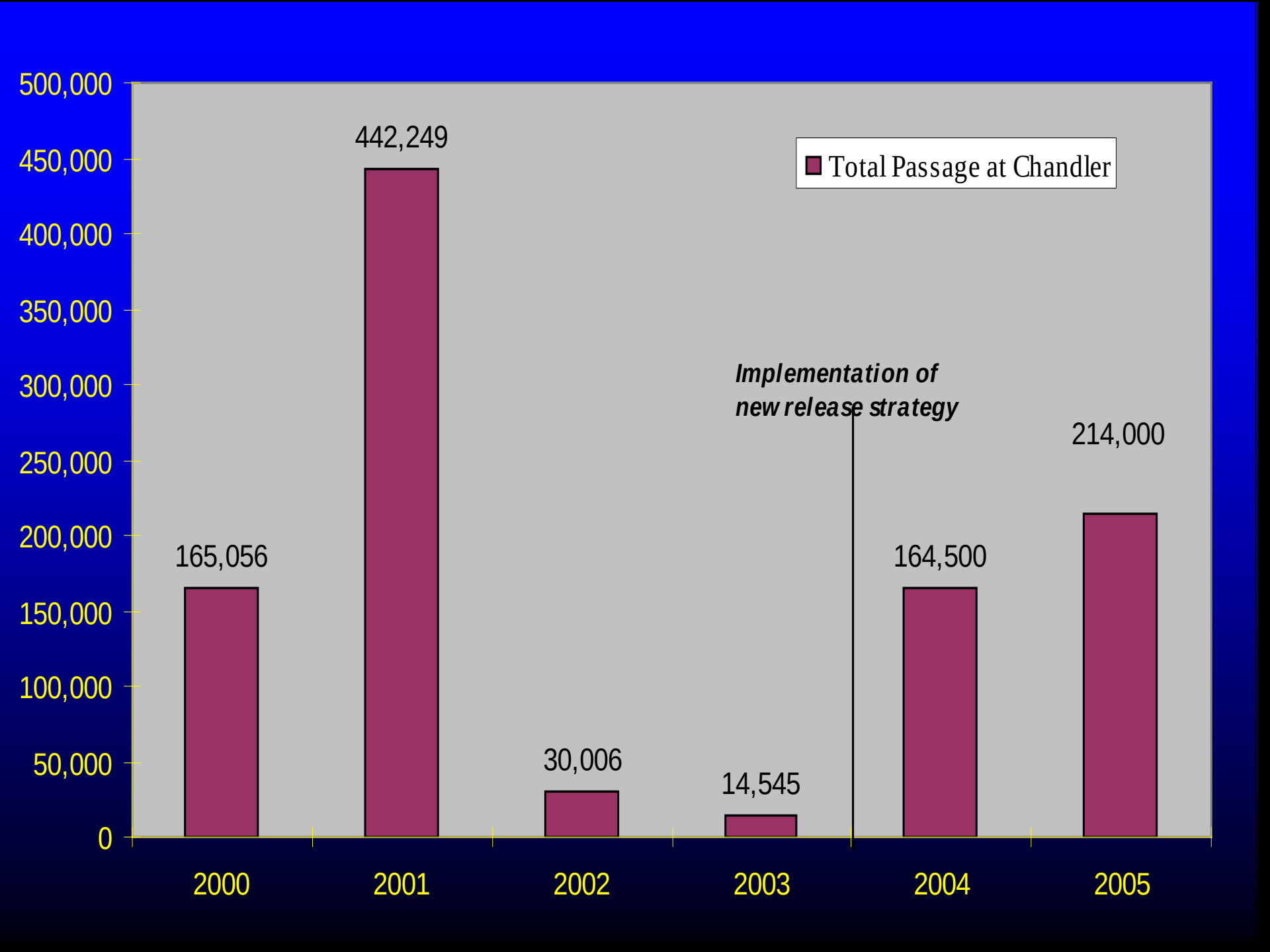


Neeley, 2004

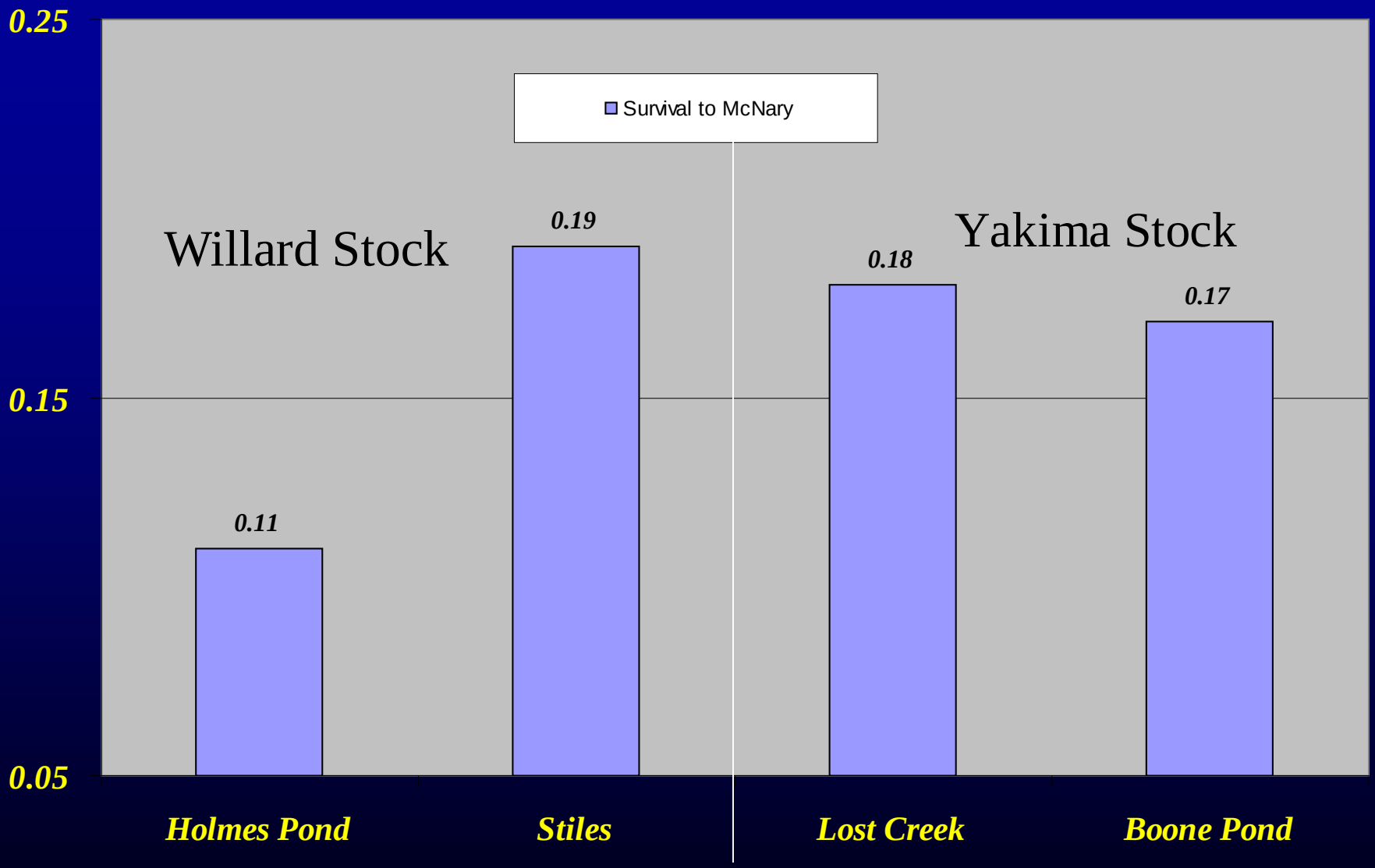
2004, Juvenile Survival Summary

- **Maximize Potential For Success (one step in reducing mortality) Migration!**

- New plan was to give our weaker fish (out of basin) the best chance at survival and ultimately increase our passage out of the Yakima Basin
- (release them from our best sites).
- 80% of the smolts were released from Stiles and Holmes
- Low Detection Rates, Ranged from 24% to 73% and as low as 15%.
- ***Site Comparisons***
  - Overall pooled brood and acclimation survival was higher in the Naches River 18% than release survival in the Upper Yakima River 14%.
  - Within the Naches River releases, Stiles acclimation site (out of basin brood) exceeded survival of Lost Creek (in basin brood) releases 19% and 17% respectively.
  - Within the Upper Yakima River Boone Pond acclimation site (in basin brood) exceeded survival of Holmes Ponds releases 17% and 11% respectively.
  - The adaptive management worked, overall expanded passage of smolts through Prosser went from, an estimated 14,500 smolts in 2003 to 164,500 in 2004 and preliminary passage for 2005 is 214,000 smolts.
- ***Stock Comparisons***
  - ***There was no statistical comparisons made between in basin and out of basin stocks. Stock comparison will resume in 2005-2006 releases.***

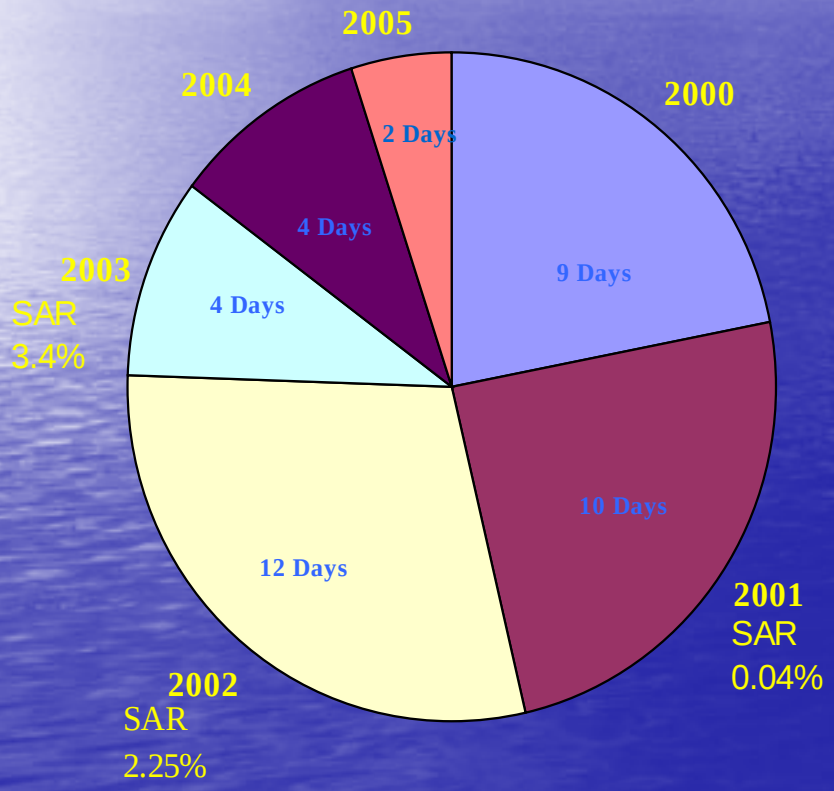

500,000
450,000
400,000
350,000
300,000
250,000
200,000
150,000
100,000
50,000
0
Total Passage at Chandler
165,056
442,249
30,006
14,545
Implementation of
new release strategy
164,500
214,000
2000
2001
2002
2003
2004
2005

2004 Smolt Survival



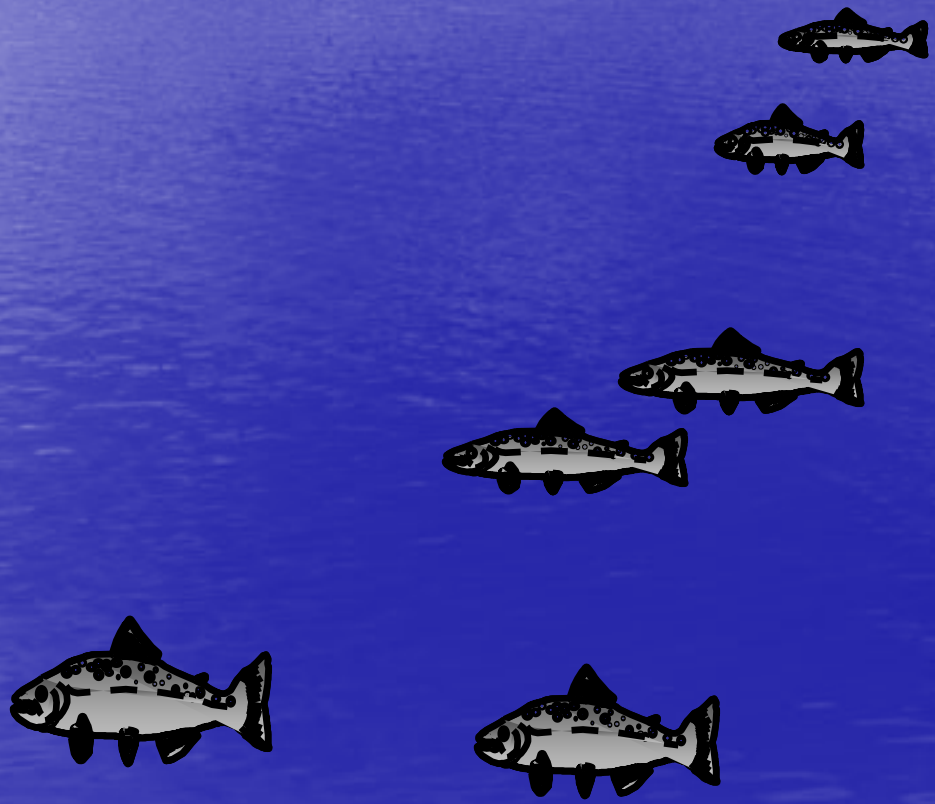
50% Passage, Natural vs. Hatchery

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

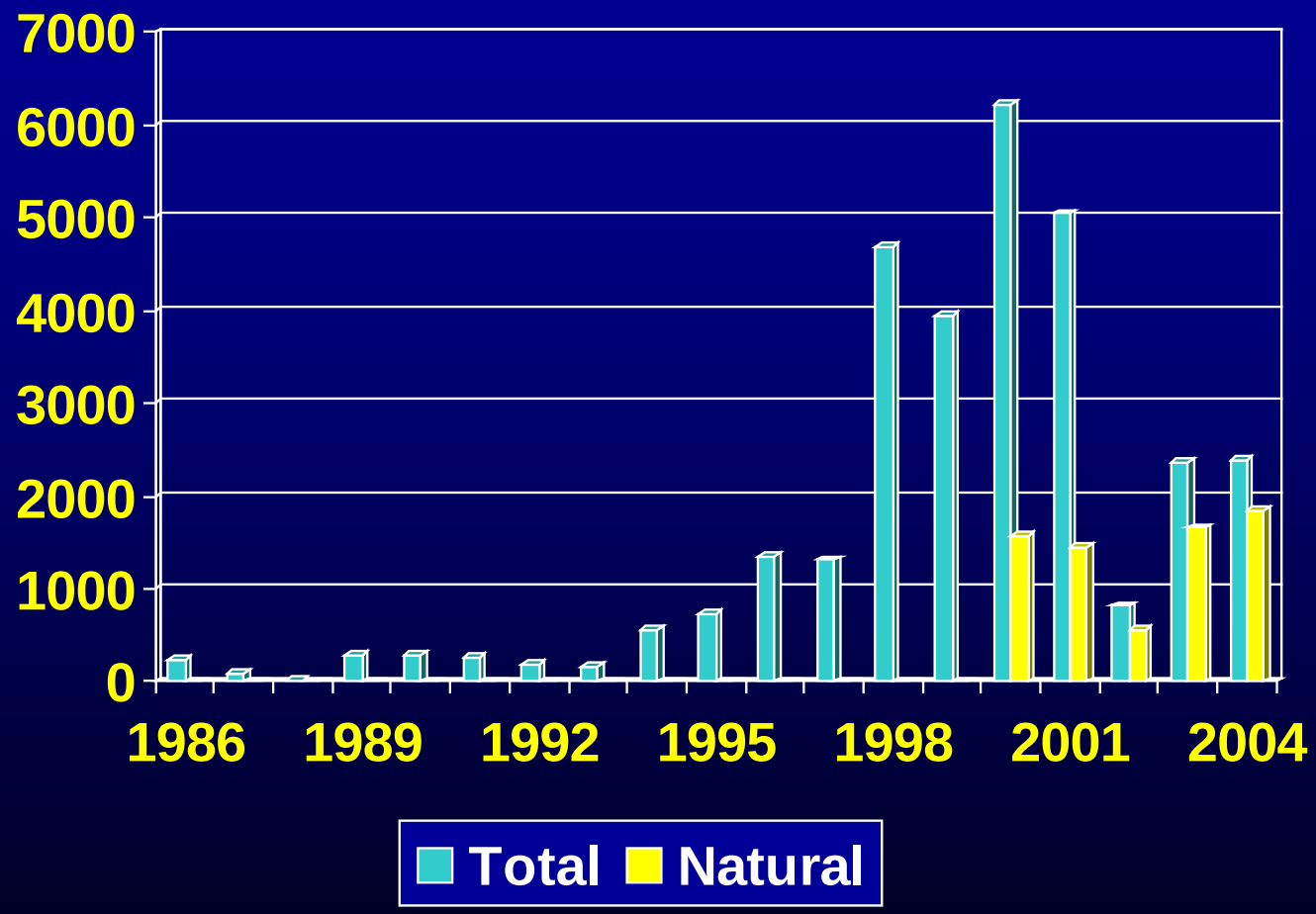


	Wild	Hatchery
2000	05/26/00	06/04/00
2001	05/31/01	06/09/01
2002	05/04/02	05/16/02
2003	05/18/03	05/21/03
2004	05/10/04	05/14/04
2005	4/28/2005	4/30/2005

Adult Returns



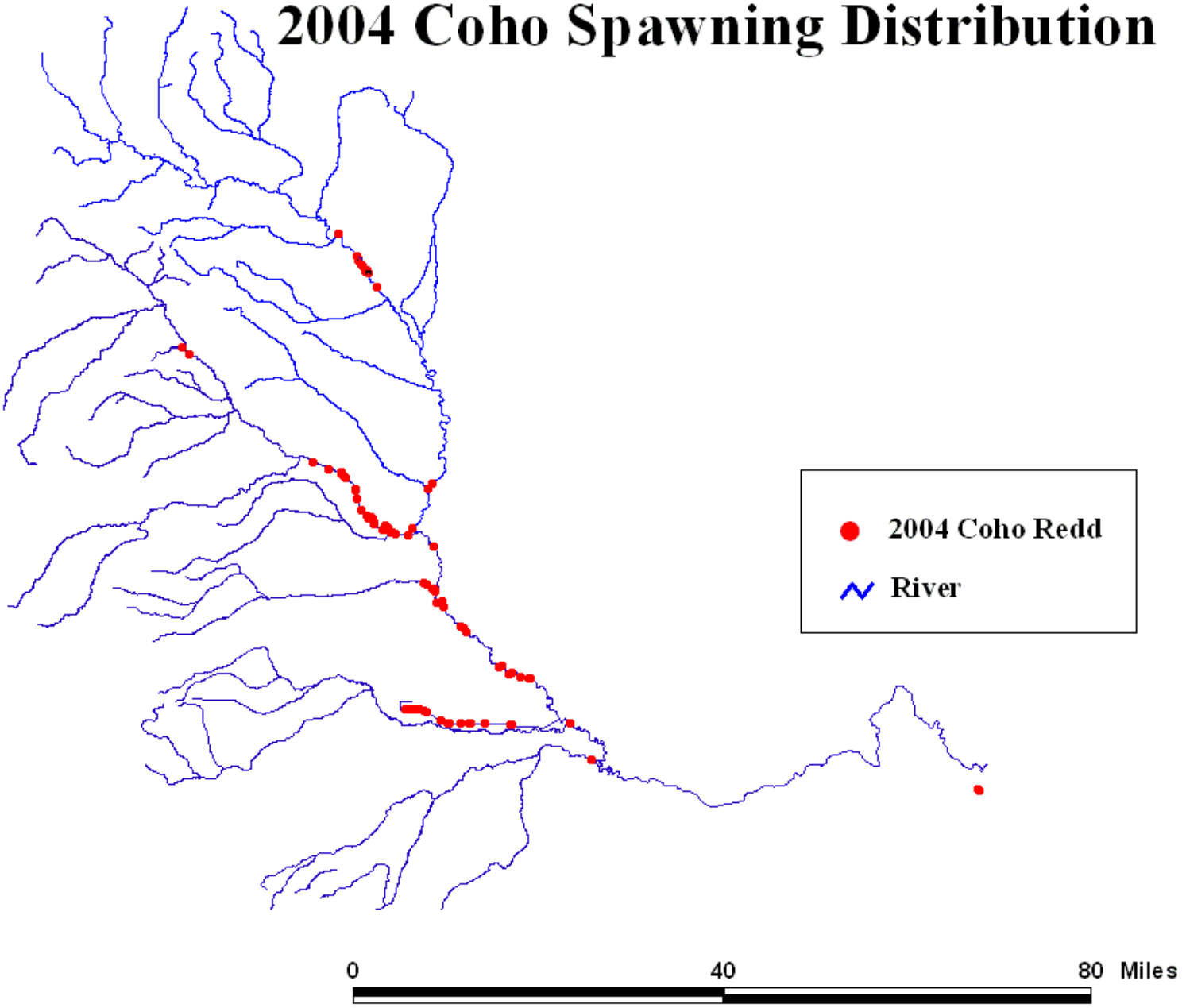
Upper Yakima Coho Returns, 1986 – 2004



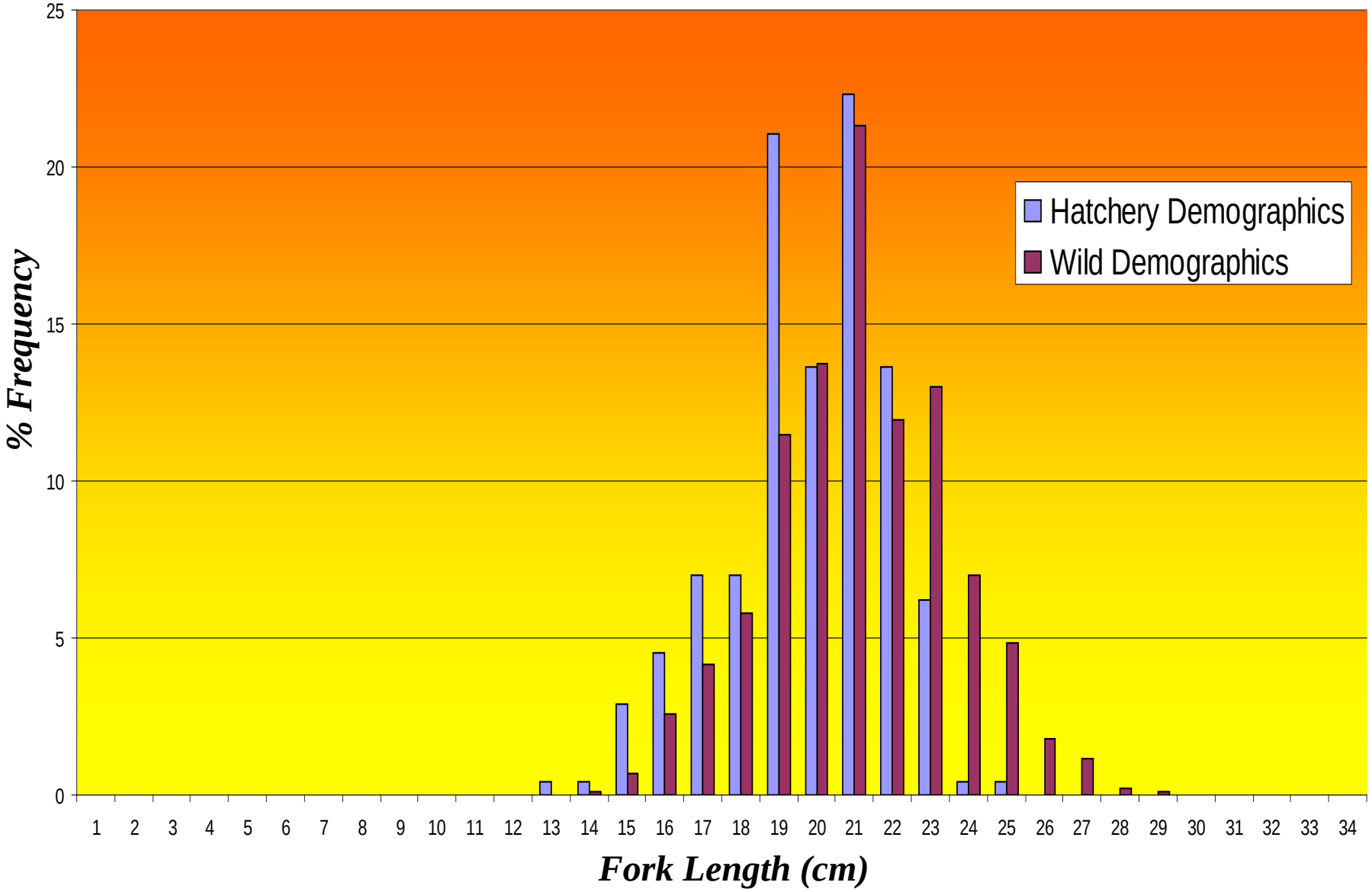
Redd Distribution

Naches River	87
Yakima River Below Roza Dam	35
Upper Yakima River Above Roza Dam	32
Buckskin Slough	35
Marion Drain	21
Ahtanum Creek	28
Other Tributaries	8

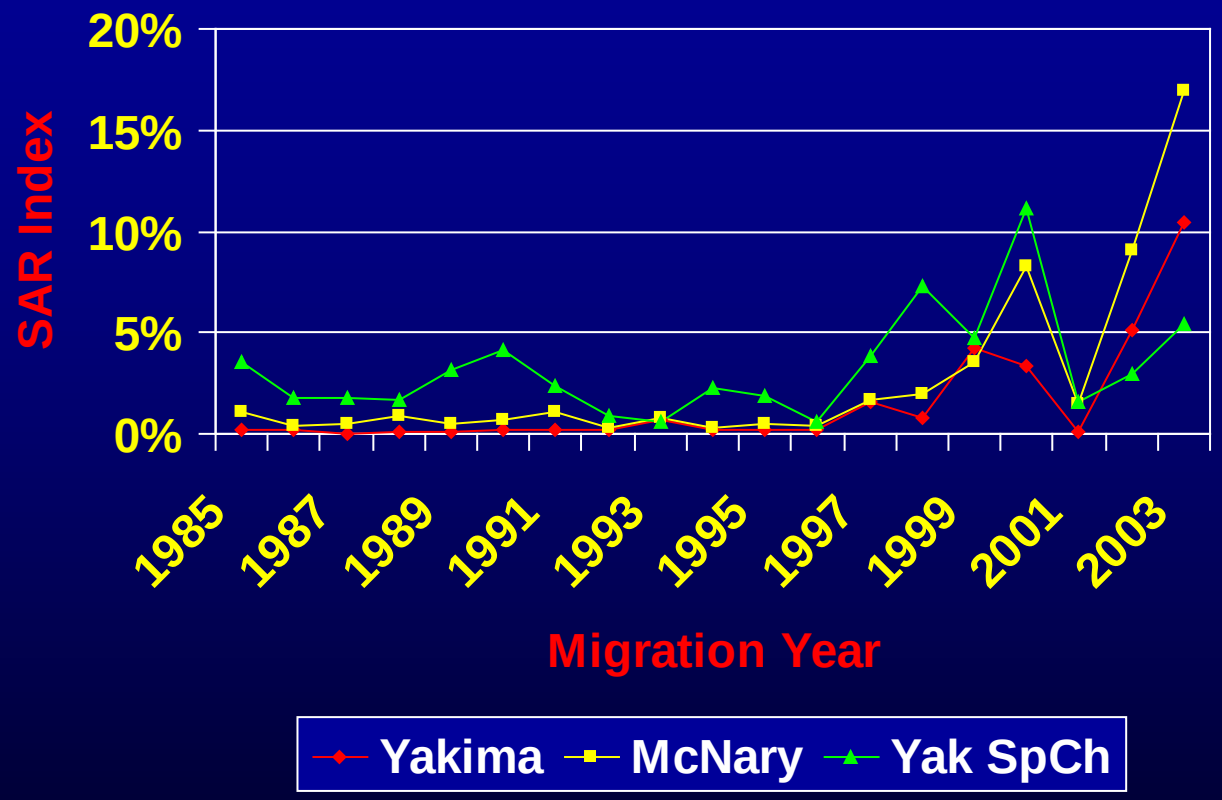
2004 Coho Spawning Distribution



2004 Adult Coho Demographics



Coho Reintroduction Smolt-to-Adult Survival Indices for Migration Years 1985 – 2003



2004 Coho Highlights

1st Acclimated Holmes Coho Return

Holmes Cottonwood Gallery Redd

The coho above dug this redd!

Spawned out Male Coho (Holmes)

Redd Caps

Radio Tracking Objectives

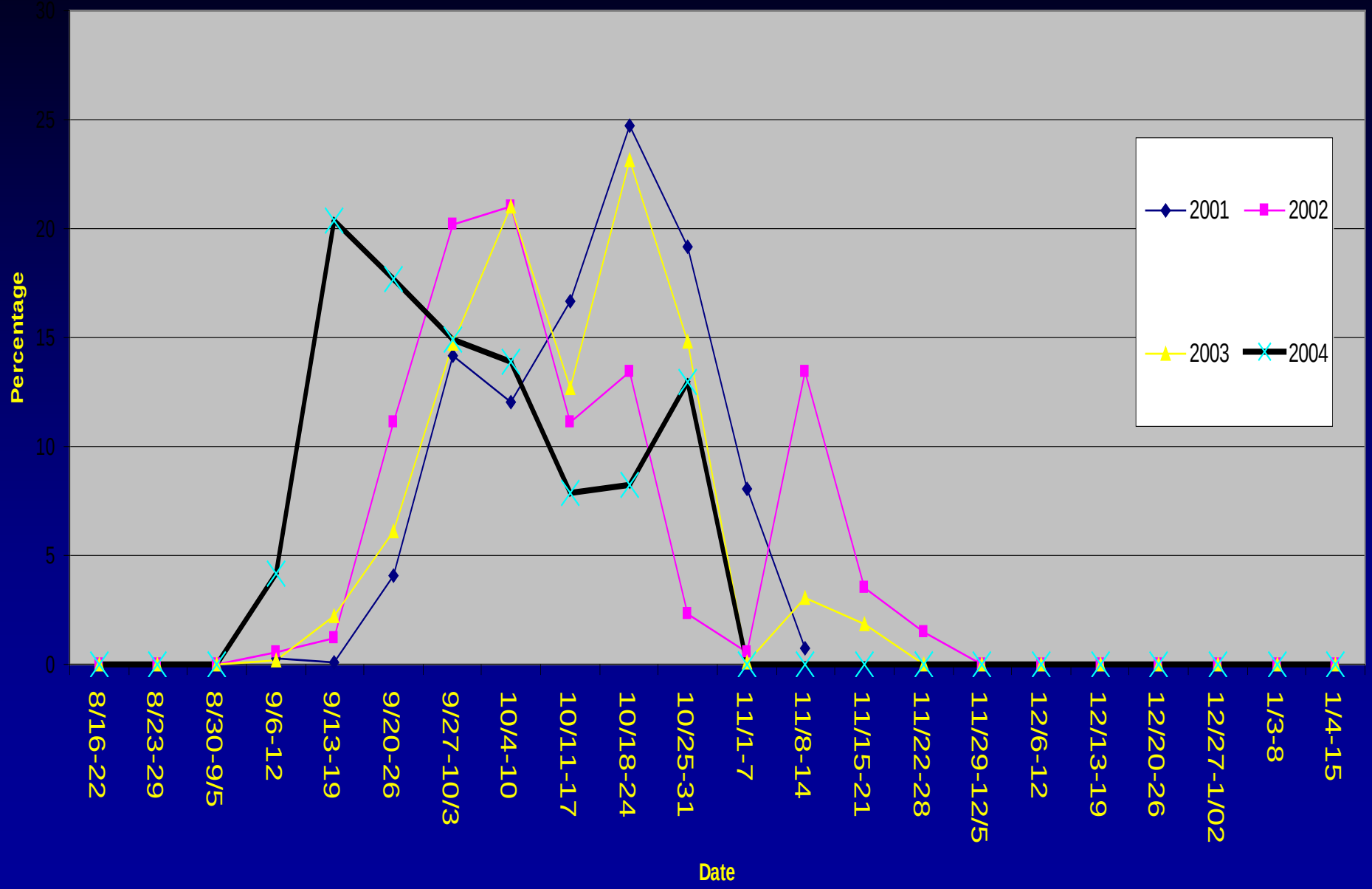
Radio tag approximately 90 randomly collected adult Coho at Prosser Dam.

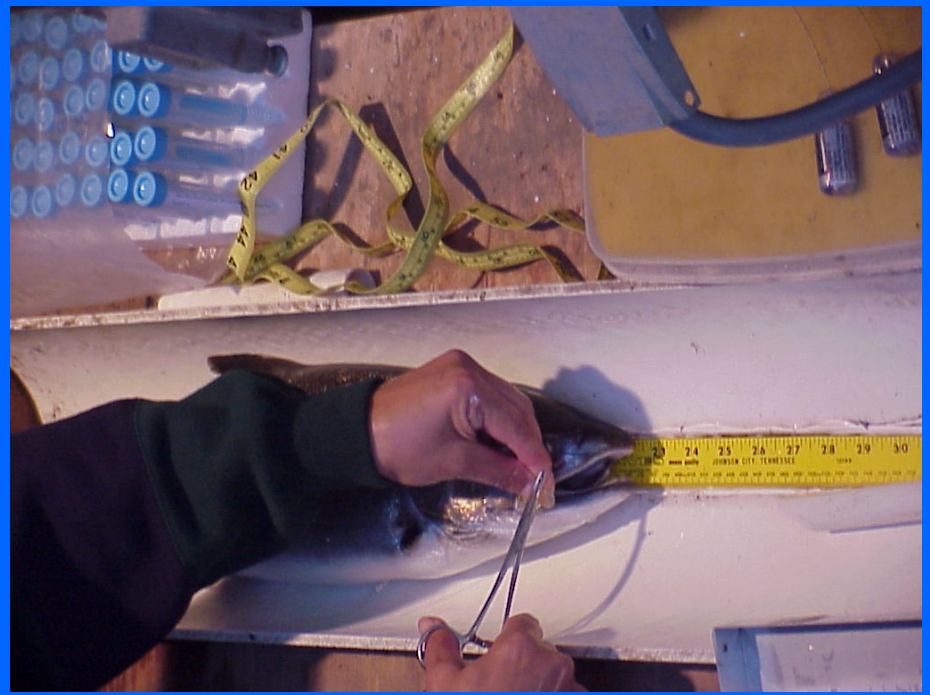
Determine spawning distribution of returning Coho to the Yakima River.

Test trapping and radio tagging adult Coho at Cowiche and Roza Dams.

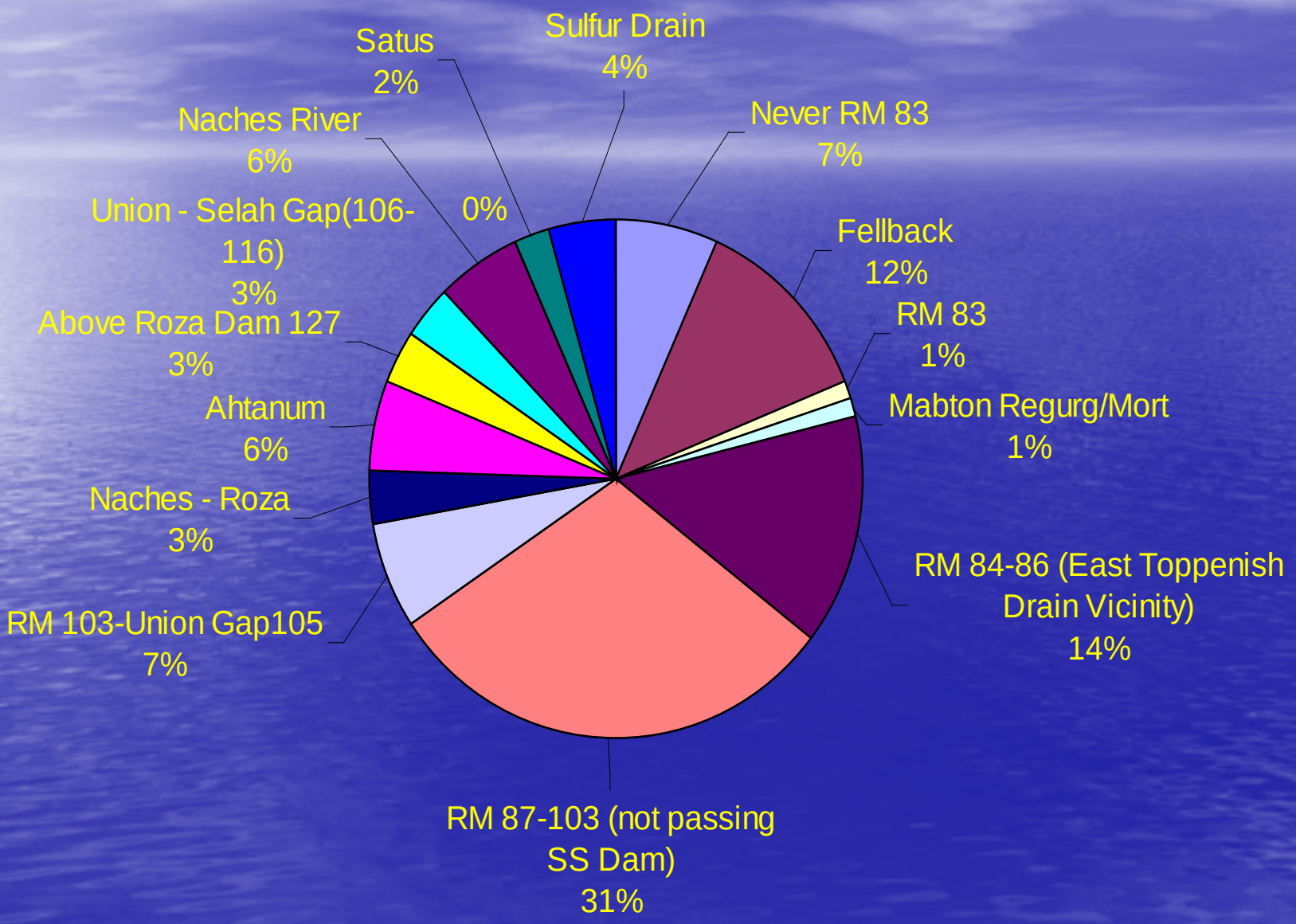
From radio tracking, use redd distribution to locate areas of wild rearing, perform summer snorkeling survey to assess abundance and distribution.

Adult Coho Denil Passage
2001-2004

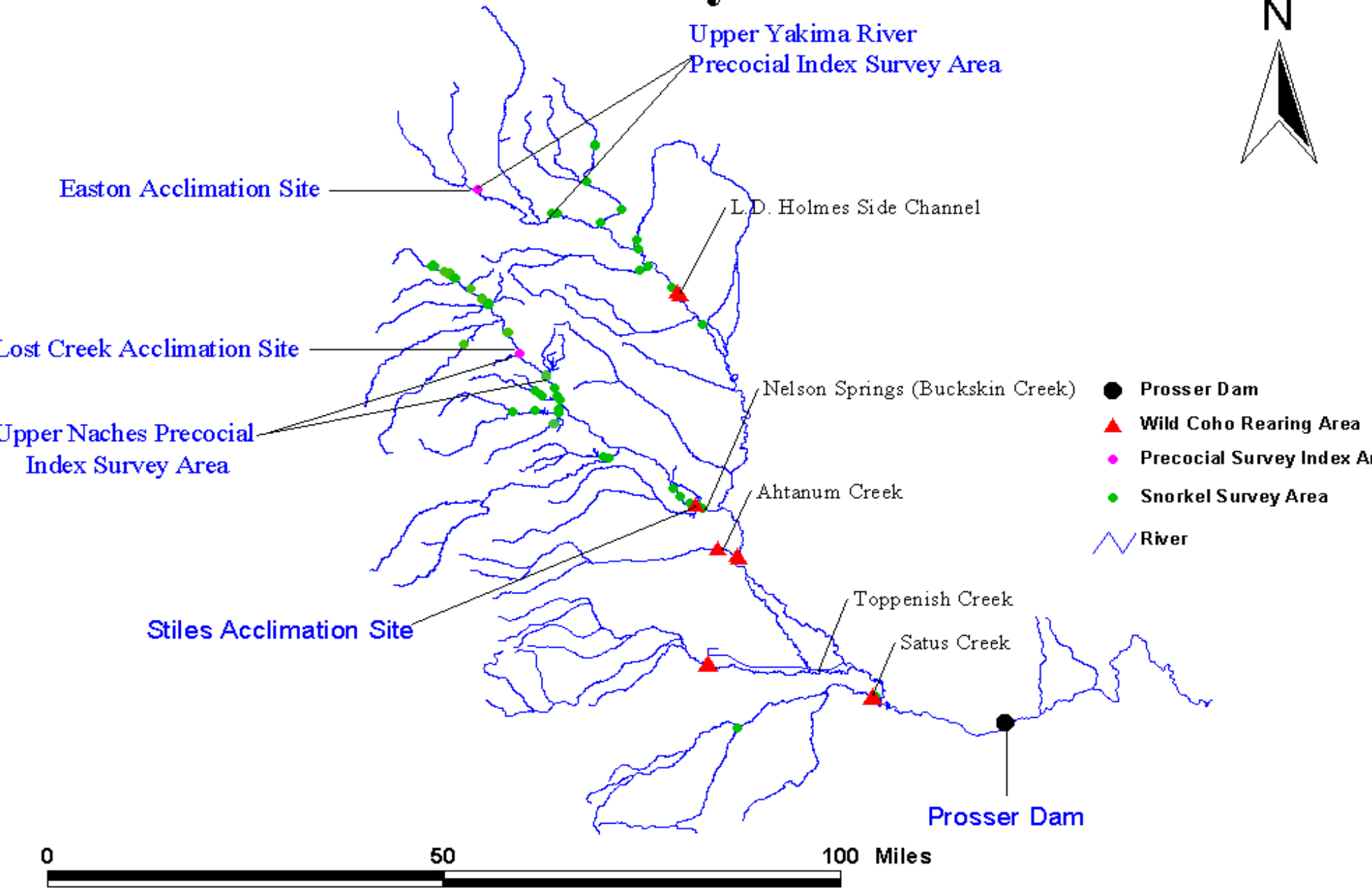




2004 Final Radio Tag Destinations



Snorkel Survey Sites



The End