Big Horn Lake, WY

2014 Fishery Update

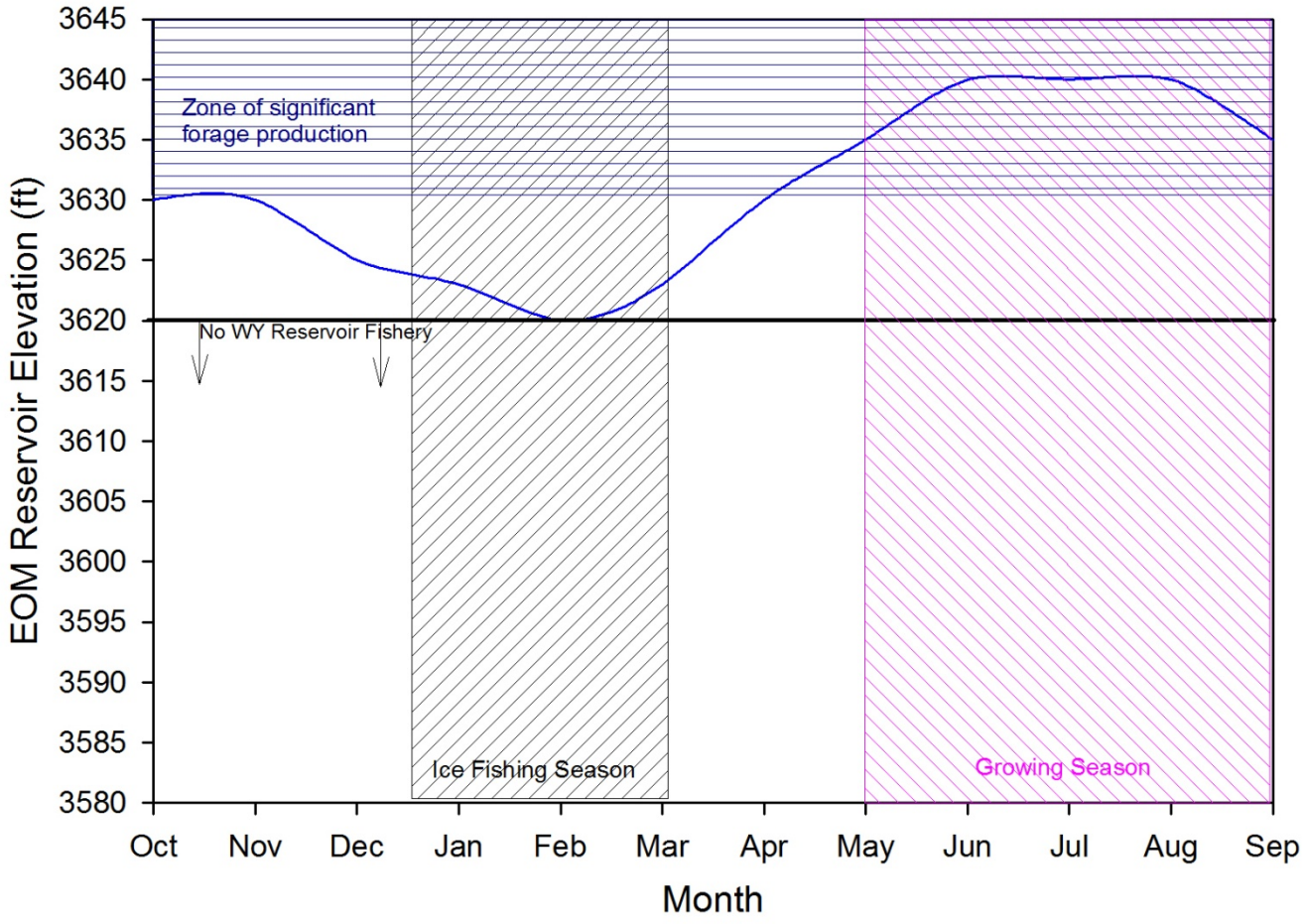
Bighorn Issues Group meeting November 2014

Overview

-Overview of sauger fishery

-Update on sauger egg-take.

Model


3645
3640
3635
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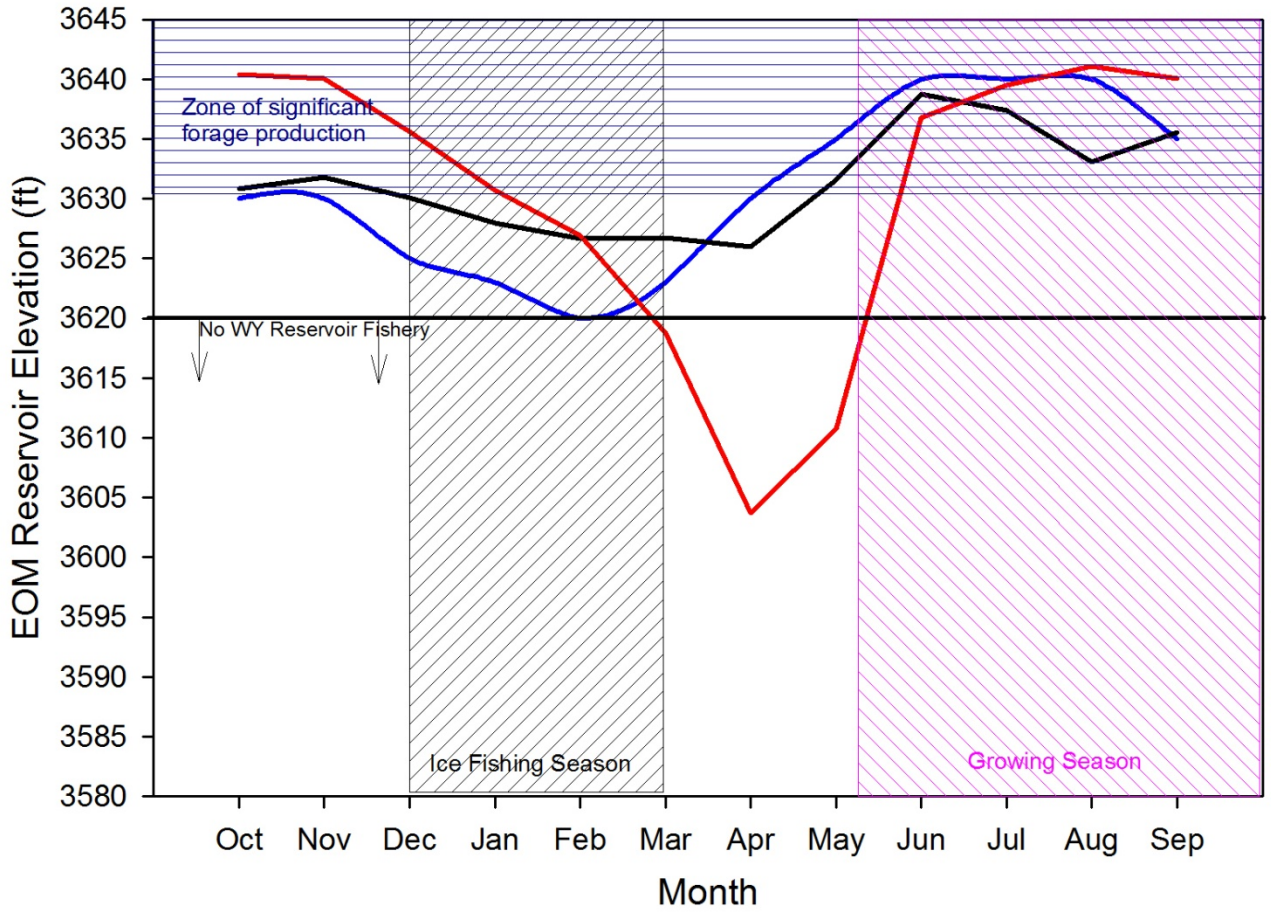
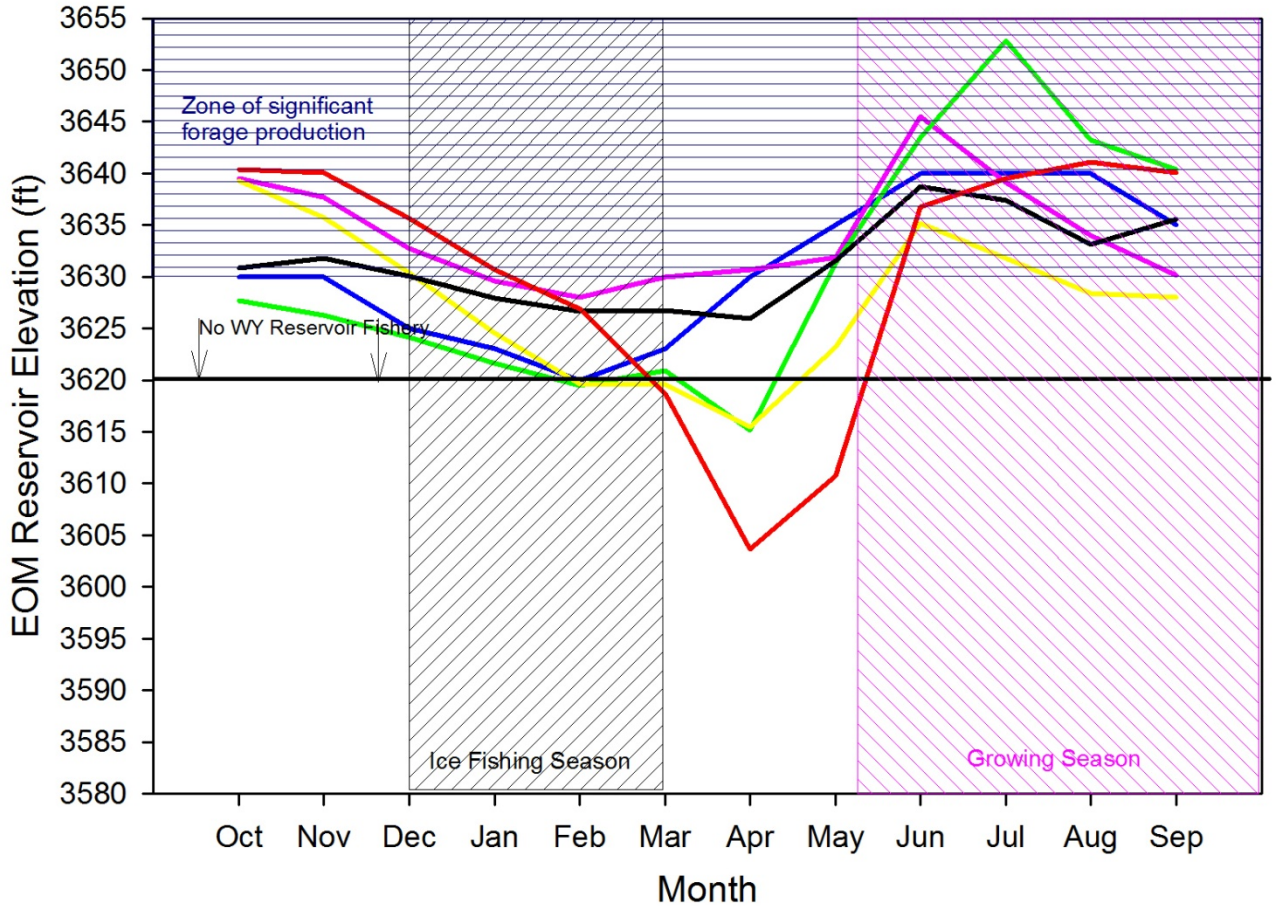
3585
3580
EOM Reservoir Elevation (ft)
Zone of significant forage production
No WY Reservoir Fishery
Ice Fishing Season
Growing Season
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Month

2013 and 2014



5 years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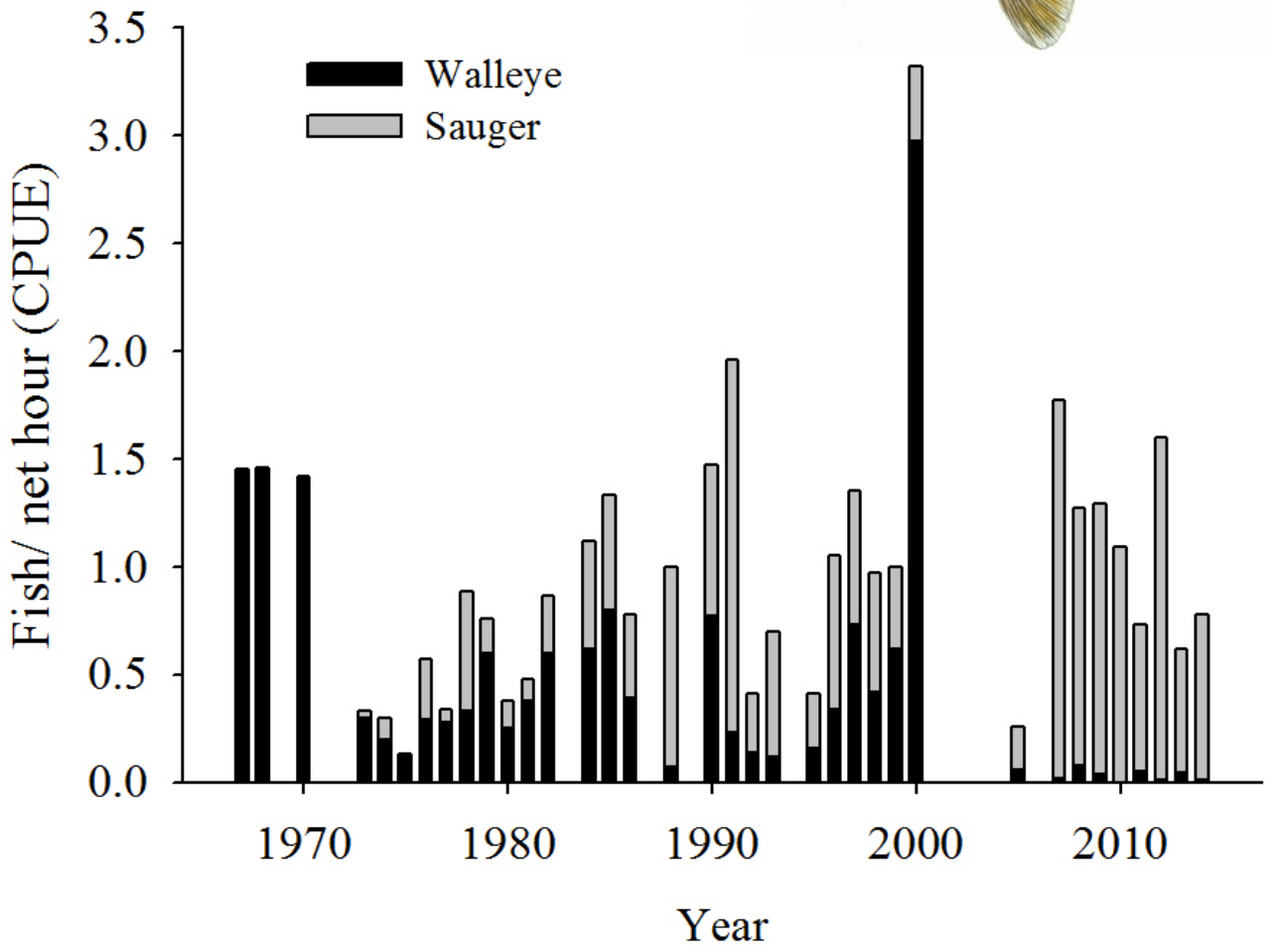
Monitoring

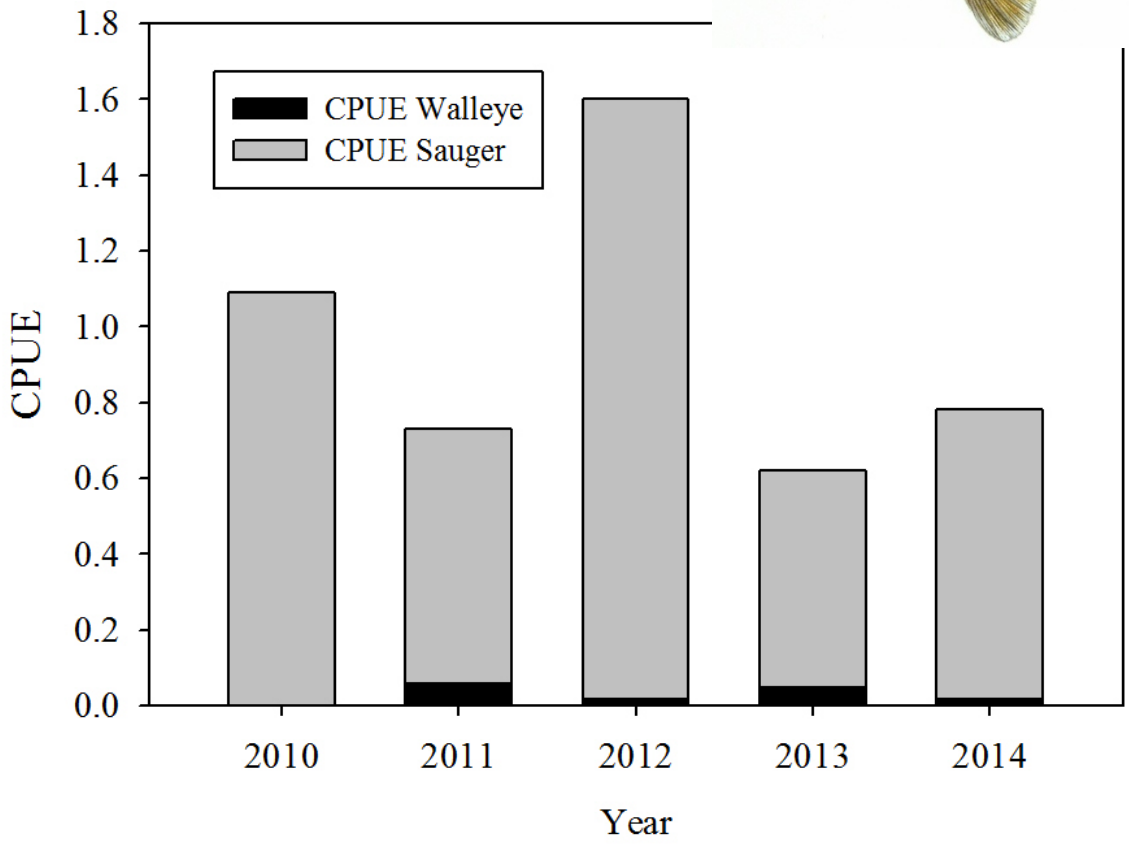
Sauger & Walleye

- Gill Nets
  - Fall
- Tagging
- Shoreline electrofishing
- Spawning grounds in river

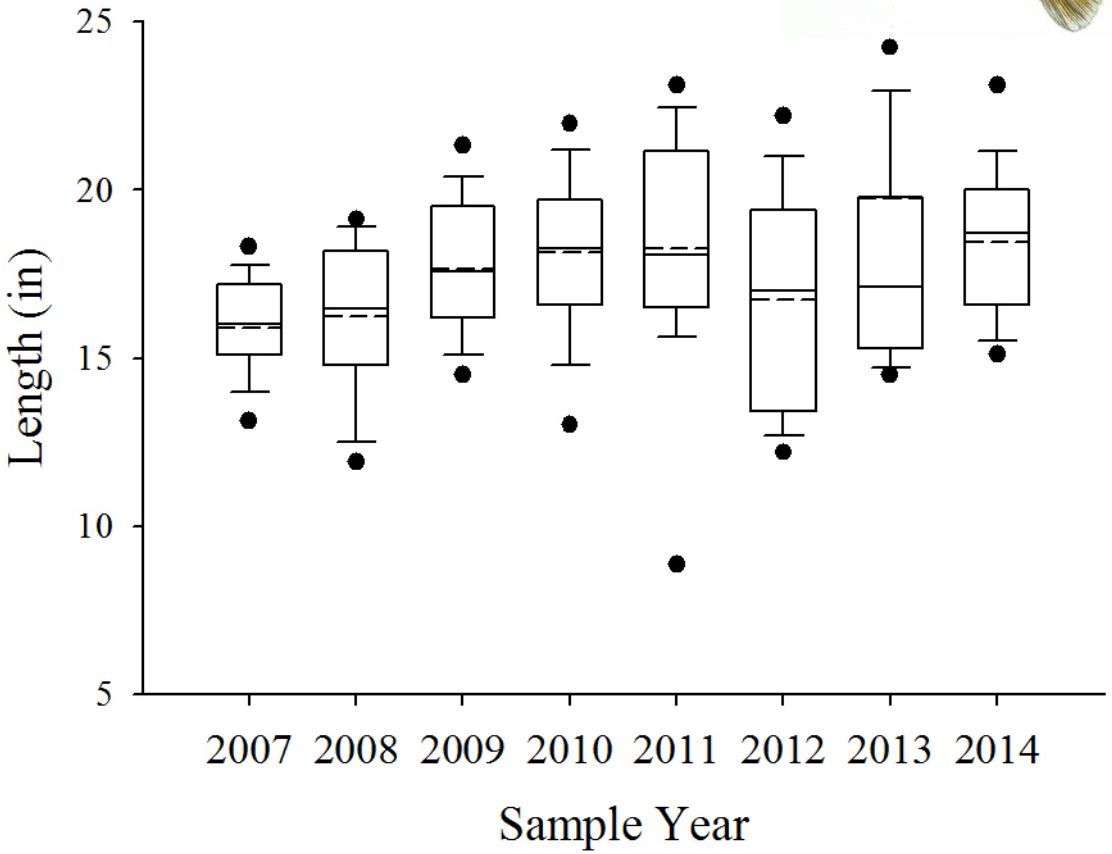
Sauger & Walleye



Sauger & Walleye



Sauger


25
20
15
10
5
Length (in)
2007
2008
2009
2010
2011
2012
2013
2014
Sample Year

The Plus Side of Big Water Years

River flows and temperature patterns more optimal for recruitment

Update on Sauger Egg-Take

Goal:

-Determine the feasibility of supplementing the Big Horn Lake sauger population with hatchery produced fish.

Objectives:

-Collect up to 5 million eggs in WY and incubate, rear, and stock fish in MT.

-Annually stock 250 – 500 k fingerling sauger in the MT portion of Big Horn Lake.

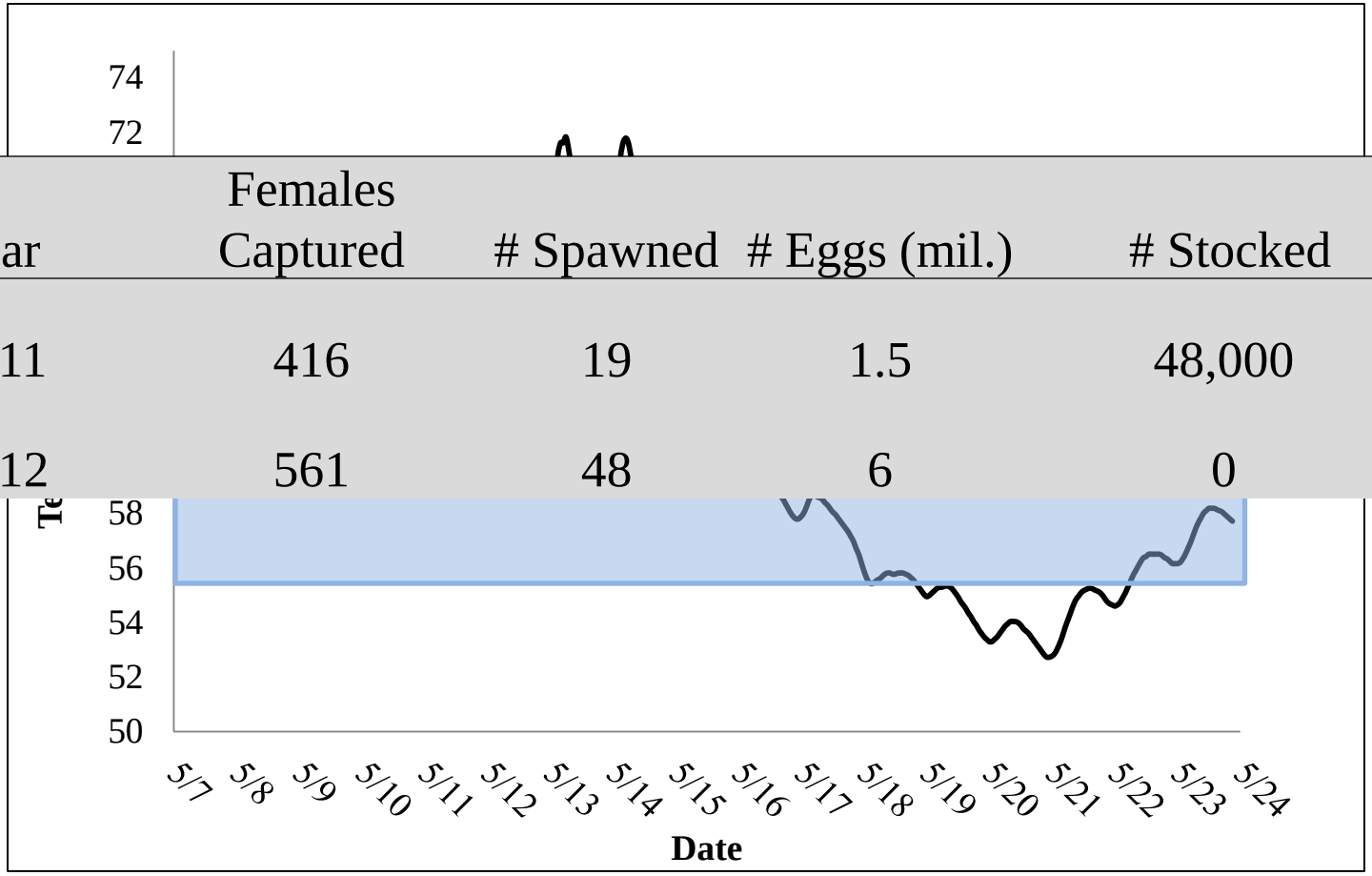
Sauger Egg-Take – A learning Process

2011 – high discharge and low water temps

Year	Females Captured	# Spawned	# Eggs (mil.)	# Stocked
2011	416	19	1.5	48,000

Sauger Egg-Take – A learning Process

2012 and 2013 – elevated water temps, low discharge



Year	Females Captured	# Spawned	# Eggs (mil.)	# Stocked
2011	416	19	1.5	48,000
2012	561	48	6	0

Sauger Egg-Take – A learning Process

2013– Designed Experiment

Sauger Egg-Take – A learning Process

2013 Controlled Experiment

Treatment	N	% Spawned
Hormone – Net pen	23	9
Control – Net pen	28	14
Hormone – Tank	20	25
Control – Tank	21	5

Sauger Egg-Take – A learning Process

Year	Females Captured	# Spawned	# Eggs (mil.)	# Stocked
2011	416	19	1.5	48,000
2012	561	48	6	0
2013	144	15	1.2	105,000

Sauger Egg-Take

2014 – 4th Year

Sauger Egg-Take – A learning Process

2014 Results

Treatment	N	% Spawned
Hormone – Tank	123	55
Control – Tank	42	14

Sauger Egg-Take – A learning Process

Year	Females Captured	# Spawned	# Eggs (mil.)	# Stocked
2011	416	19	1.5	48,000
2012	561	48	6	0
2013	144	15	1.2	105,000
2014	165	61	7.1	176,202
				329,202

Sauger Egg-Take Summary

-It's proven harder than we originally thought.

-Stable holding environment and hormone key to improving female ripening.

-Still a lot to learn on the hatchery end.

-Future of the project in limbo.

Questions?