



Achii Hanyo

Native Fish Rearing Facility

2010 Station Update

Presented by Mark Yost II

We'll Discuss...

- ▶ Achi Hanyo Introduction
- ▶ 2010 Winter Projects
- ▶ 2010 Growing Season Results
- ▶ Future Plans for 2011





Picture Compliments of Andy Pernick, USBR

Fish Cultured

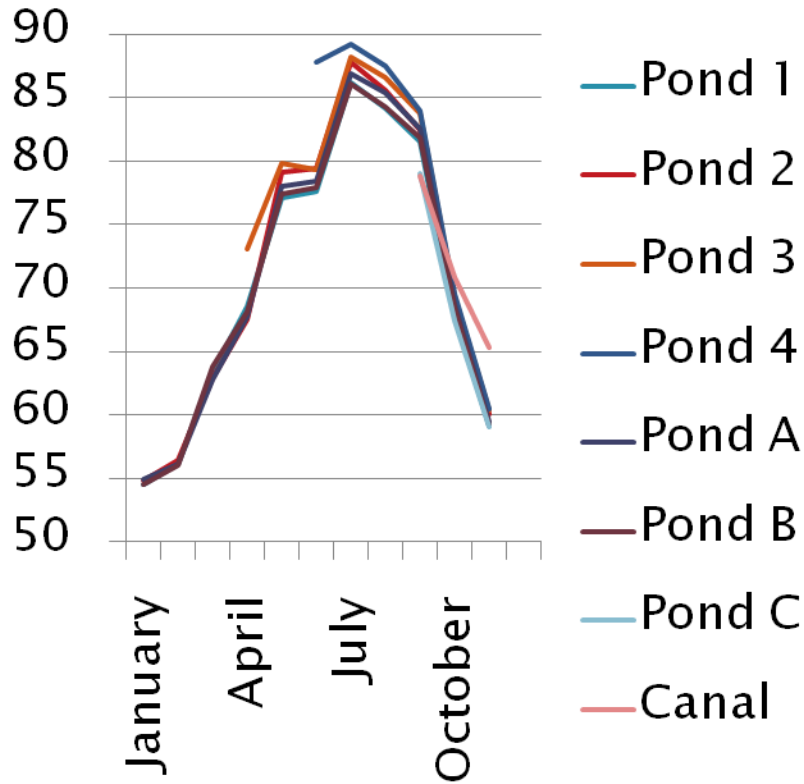


- ▶ Bonytail
(*Gila elegans*)

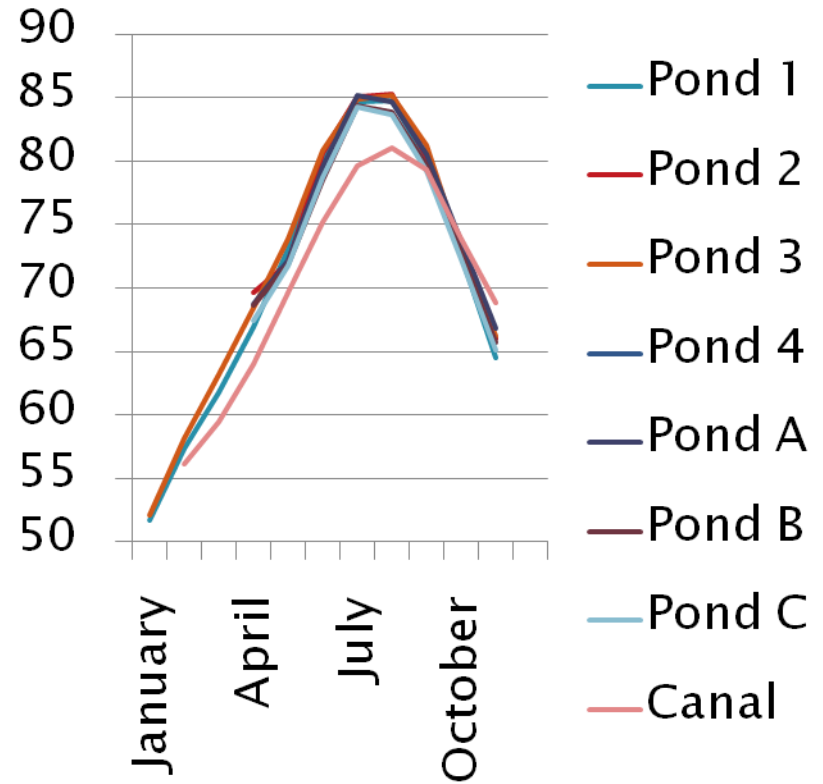


- ▶ Razorback Sucker
(*Xyrauchen texanus*)

Water Temperature (°F)

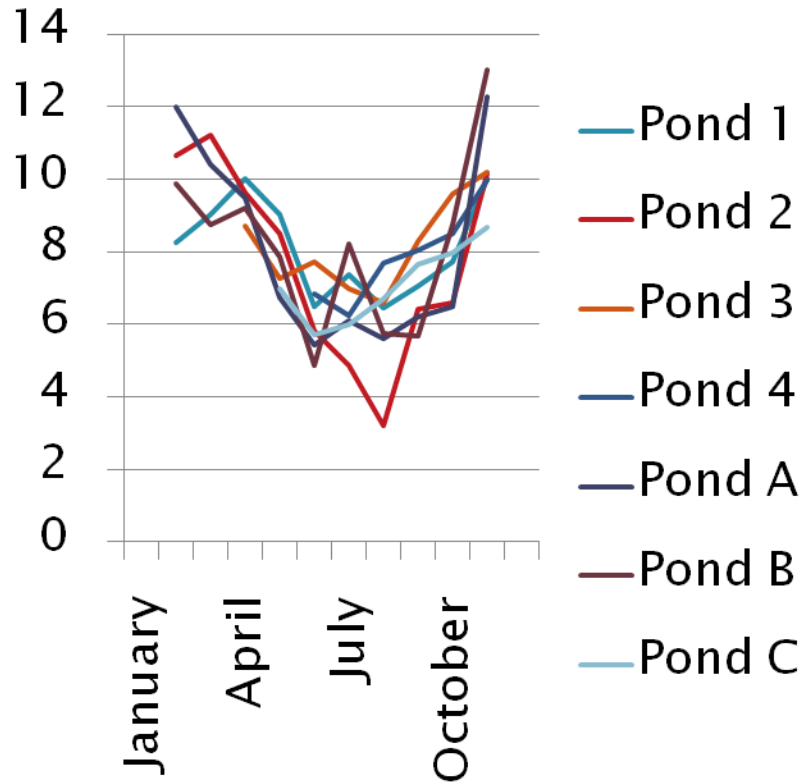


2009

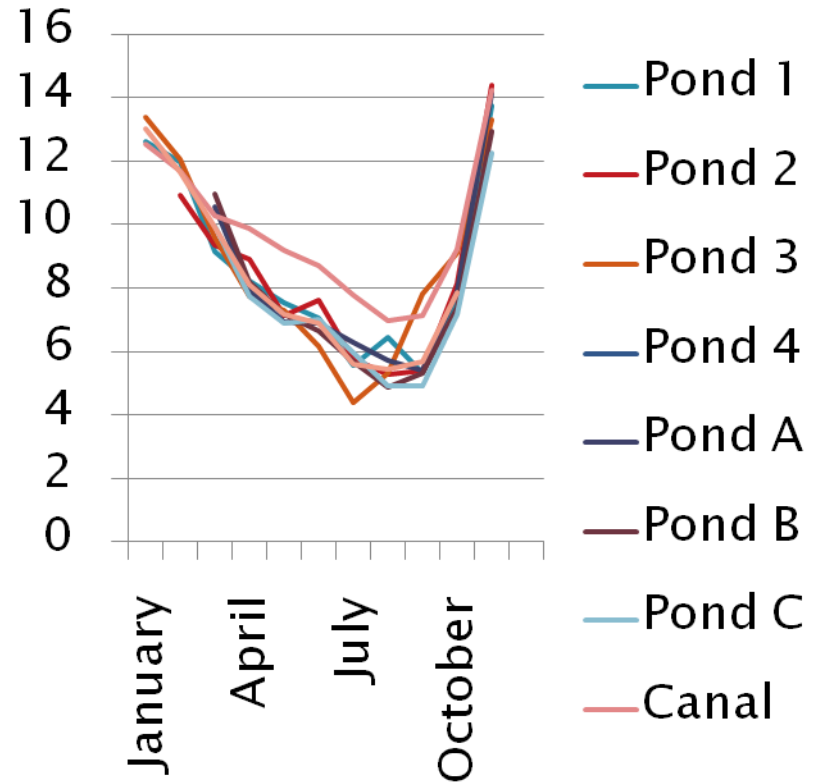


2010

Dissolved Oxygen (mg/L)



2009



2010

2010 Winter Projects



New Kettle and Steps in
Pond C



New Kettle and Steps in
Pond B

2010 Winter Projects



New Steps in Pond 2 & Pond A



New Water Supply to Ponds A, B, & C

Pond Maintenance



Pond Maintenance



Disking

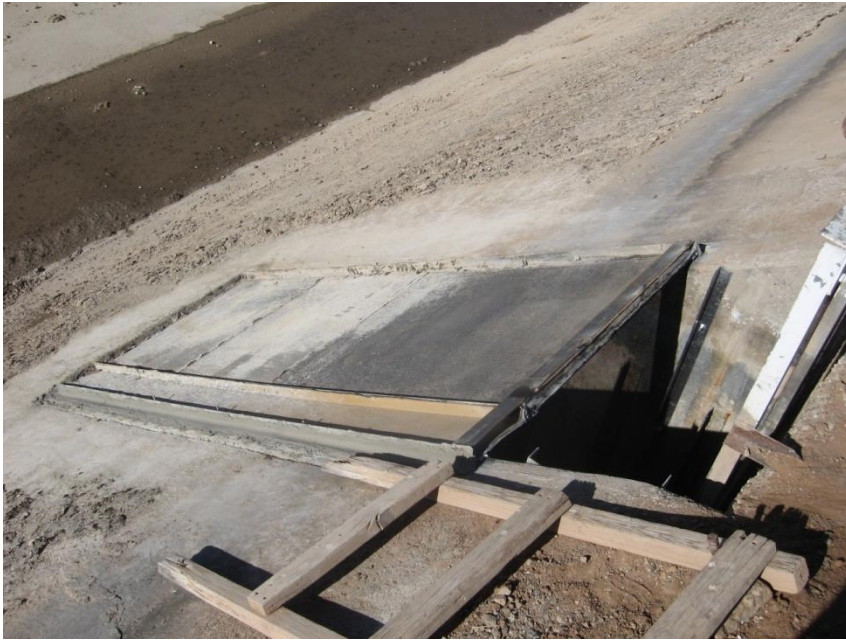


Grading

Increased Water Delivery



Improved Water Filtration



Sealed Canal Screen



Sealed Fish Screens

Polyethylene Micron Socks



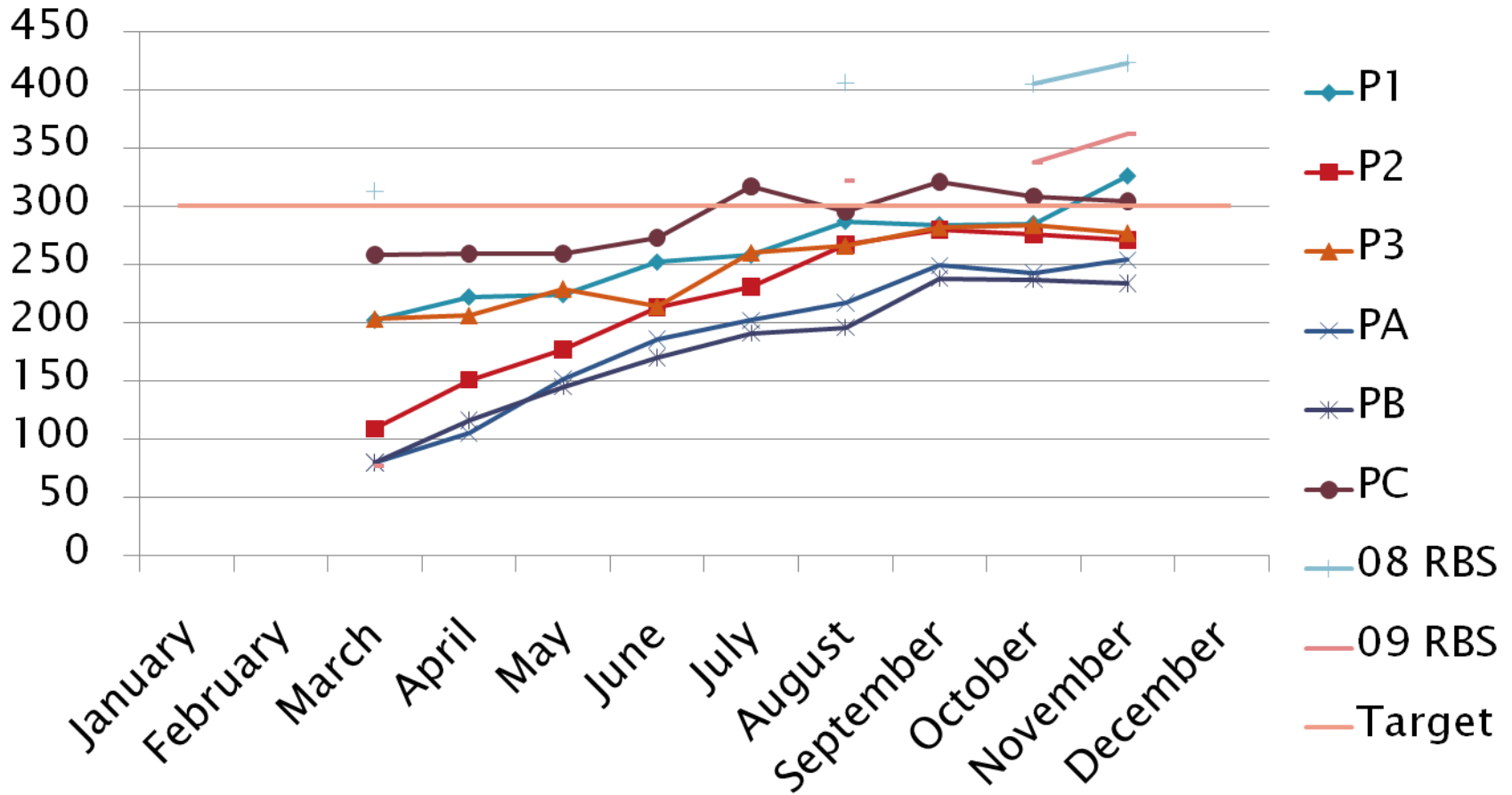
Stocking Ponds in 2010



Harvest Result for 2010

Pond (Ac.)	Species / Year	# Stocked	TL (mm)	# Harvested	TL (mm)	% Survival	% >300mm
1 (0.42)	BTC '09	2378	166	2174	326	91	58
	RBS '08	50	313	14	455	28	100
2 (0.92)	BTC '09	2504	95	874	271	35	28
	RBS '08	267	313	190	412	71	98
3 (1.36)	BTC '09	4996	168	2603	277	52	35
	RBS '08	121	313	43	464	36	100
A (0.17)	BTC '09	808	80	685	254	85	3
	RBS '09	100	77	65	364	65	95
B (0.26)	BTC '09	1573	80	1403	234	89	2
	RBS '09	119	77	57	382	48	96
C (0.83)	BTC '08	1906	258	1337	304	67	47
	RBS '09	331	77	154	354	47	95
Totals	BTC	14165		9076		64	34
	RBS	988		523		52	96
	BTC '10			42000			

2010 Growth - TL (mm)



Tagging Fish $\geq 300\text{mm}$

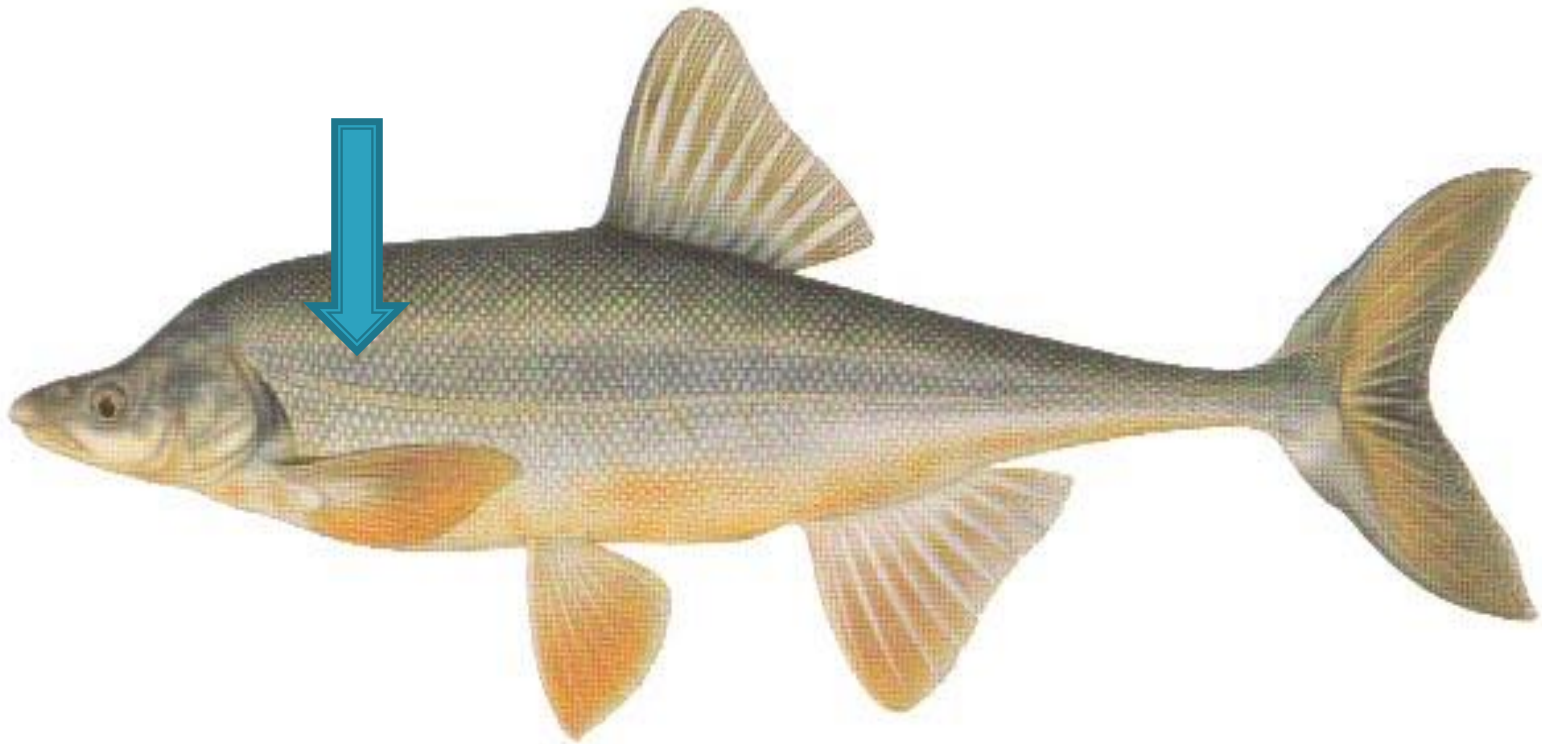


Bonytail
Wire Tagged – Left Pectoral



Razorback
PIT Tagged – Right Pelvic

Above Lateral Line - Above Left Pectoral Fin



98/400

Dexter National Fish Hatchery, Dexter, NM, 20 March 1991

Bonytail Chub
GILA ELEGANS

Joseph W. Tomelleri

Drawn from Nature by Joseph W. Tomelleri

Stocking Bonytail



Stocking Results for 2010

Date	Location	Lot	#	TL (mm)	Tag Information
12/3/2009	La Paz Co. Park, Colorado River	BTC-LMD-08, 09-DEX-WIB	961	328	Wire – Left Pectoral
12/3/2009	Bill Williams River, Lake Havasu	BTC-LMD-08, 09-DEX-WIB	25	387	Sonic
12/3/2009	Bill Williams River, Lake Havasu	BTC-LMD-08, 09-DEX-WIB	7	387	PIT
12/3/2009	Bill Williams River, Lake Havasu	BTC-LMD-09- DEX-WIB	2100	335	Wire – Left Pectoral
12/7/2009	Willow Beach, Lake Mohave	RBS-LMW-08, 09-WIB	504	398	PIT – Right Pelvic
		Totals			
		BTC	3093	>300	Wire – right dorsal
		RBS	504	>300	PIT – right pelvic

Brief Discussion

▶ Survival

- Bonytail – **64%** (45% in 2009)
 - Smaller Ponds (<1 / 2 Acre), Better Survival (>85%)
- Razorback Sucker – **52%** (91% in 2009)

▶ Growth

- Bonytail – **34%** >300mm (48% in 2009)
 - ~86% of fish on station from 2009 year class in 2010
- Razorback Sucker – **97%** >300mm (100% in 2009)
 - **45%** >400mm

▶ Polyculture

- Stock fish of similar size to avoid predation
 - Pond 2 – 95mm bonytail vs. 313mm razorbacks (35% bonytail survival)
- Otherwise no apparent detriment to either species, provided densities don't exceed carrying capacity

Rough Fish Control in 2010!



Plans for 2011

- ▶ Continue Refining Native Fish Polyculture
- ▶ Incorporate Pond Fertilization
- ▶ Reconstruct North Levee in Pond 4
- ▶ Possibly Expand Production Capacity
 - Install a new drain line
 - Build 1–4 new 0.25–0.33acre ponds (6–8K fish)
 - Install kettles and concrete steps
 - Install a new water supply line
- ▶ Possibly Purchase and Install a Larger Pump
- ▶ Continue Clearing Overgrown Brush
- ▶ Grow Lots of Big Bonytail and Razorbacks



Picture Compliments of Andy Pernick, USBR

Acknowledgments

- ▶ CRIT
- ▶ USFWS
 - Willow Beach NFH
 - Dexter NFH & TC
 - Uvalde NFH
 - Parker AZCO
- ▶ USBR
- ▶ USBIA
- ▶ Marsh & Associates
- ▶ Many Others



Any Questions???

