

NEVADA DEPARTMENT OF WILDLIFE  
STATEWIDE SPORT FISHERIES MANAGEMENT



FEDERAL AID JOB PROGRESS REPORT

F-20-48  
2012

SOUTH FORK RESERVOIR  
EASTERN REGION



**NEVADA DEPARTMENT OF WILDLIFE, FISHERIES DIVISION  
ANNUAL JOB PROGRESS REPORT**

Table of Contents

<u>Contents</u>	<u>Page</u>
SUMMARY .....	1
BACKGROUND .....	2
OBJECTIVES and APPROACHES .....	2
PROCEDURES .....	3
FINDINGS .....	4
General Sport Fisheries Management .....	4
Opportunistic Angler Contacts and Surveys .....	4
Spillway Channel Fish Salvage .....	5
South Fork Reservoir Fishery Study .....	5
Water Temperature Monitoring.....	5
Sport Fish Population Surveys. ....	6
Utilize Proven Angling Techniques to Collect a Minimum of 50 Wipers.....	9
Warmwater Fish Stocking.....	11
MANAGEMENT REVIEW .....	11
RECOMMENDATIONS .....	11

**NEVADA DEPARTMENT OF WILDLIFE, FISHERIES DIVISION  
ANNUAL JOB PROGRESS REPORT**

List of Figures

<u>Number</u>	<u>Title</u>	<u>Page</u>
1	2012 Angler Use Rainbow Trout Harvest Length Frequency.....	4
2	2012 Thermograph Temperature Patterns.....	6
3	2007 – 2012 Gill Net Rainbow Trout Length Frequency .....	8
4	1996 - 2012 Population Monitoring – Gill Net Composition.....	8
5	2012 Wiper Survey Length / Weight Distribution .....	10

List of Tables

<u>Number</u>	<u>Title</u>	<u>Page</u>
1	2012 Angler Use census and Fish Harvest Summary .....	13
2	2012 South Fork Reservoir Fish Stocking.....	14
3	2012 South Fork Reservoir Fish Population Sampling Catch Record.....	15
4	1989 - 2012 Smallmouth Bass Population Status – Survey Trends.....	16

**NEVADA DEPARTMENT OF WILDLIFE, FISHERIES DIVISION  
ANNUAL JOB PROGRESS REPORT**

**State:** *Nevada*  
**Project Title:** *Statewide Fisheries Program*  
**Job Title:** *South Fork Reservoir*  
**Period Covered:** *January 1, 2012 through December 31, 2012*

**SUMMARY**

Thirty-one days of random angler surveys on South Fork Reservoir contacted 235 anglers from January through December 2012. Anglers reported fishing 831 hrs to catch 534 fish for annual average catch rates of 0.64 fish per hour and 2.27 fish per angler. The average harvest size for rainbow trout during 2012 was 16.4 in (FL), and bowcutt trout had an average harvest size of 18.3 in (FL). A total of 165,770 fish consisting of 160,020 trout and 5,750 warmwater fish (4,500 channel catfish and 1,250 wipers) were stocked during 2012.

Although harvest of legal-sized black bass was relatively low compared to trout, interest in fishing for bass continued to increase, even during the catch-and-release season (March 1 through June 30). Average size of warmwater fish harvested in 2012 was 15.0 in (TL) for 2 black bass and 18.1 in (TL) for 8 wipers. Black bass, wipers, and channel catfish continued to provide biological control on non-game fish as prescribed in the South Fork Reservoir Fisheries Management Plan.

Four gill nets were set on May 2, 2012 to evaluate game fish and non-game fish composition. The combined fish composition from the four nets was: trout (rainbow and bowcutt) 48%, wiper 14%, channel catfish 6%, Black bass 6%, Lahontan tui chub 22%, and Tahoe sucker 7%. The non-game fish to game fish ratio was 0.4:1.0, or a percent ratio of 28 to 72. This trend was well below the 17 year average of 1.4:1.0.

A total of 23 smallmouth and 56 largemouth bass were sampled during the 2012 electrofishing survey that occurred on May 8, with good representation of older age classes for both species.

A digital recording thermograph was installed in South Fork Reservoir on April 18 to monitor water temperature for forecasting black bass spawning behavior during 2012. Preferred temperature for black bass nesting and subsequent spawning should have been initiated on or around May 9. There were no deleterious temperature disturbances that occurred throughout late spring, ensuring optimum spawning conditions for largemouth and smallmouth bass.

Over the course of 5 sampling days during 2012, a total of 85 wipers were contacted, with 83 of these tagged with a numeric yellow Floy tag for future identification. The wipers sampled had an average size of 19.5 in (TL) and 61.2 oz (3.8 lbs), with fish ranging from 12.5 in (2011 stocked fish) to 24.8 in (TL), and a maximum

weight of 127.2 oz (7.95 lbs). The majority of the wipers (56 fish) captured were tagged during fish salvages in January and July 2012 from the outlet and spillway. There were 9 fish tagged during the spring gill net survey and 19 fish tagged during angling opportunities and volunteer angler contributions in early spring on the south end of the reservoir.

## **BACKGROUND**

Unusual in concept for Nevada, the South Fork Dam was constructed in 1988 exclusively to create a recreational-based reservoir. The 40,000 acre-ft impoundment inundates approximately 1,650 acres and is a year-around multi-recreational attraction. The reservoir filled for the first time in 1995 and angler visits alone exceeded 25,000 days. A multi-storied fishery of stocked trout, black bass, catfish and recently wipers has been established since water was first stored. Currently managed under a coldwater, Quality Fisheries Management Concept, and despite heavy angling pressure the fishery continues to produce quality and occasional trophy size game fish on a constant basis. Careful attention is required for administration of management initiatives and monitoring of angler harvest and fish body condition as both recreational sport fish interest and regional populations increase.

## **OBJECTIVES and APPROACHES**

Objective: General Sport Fisheries Management

Approaches:

- Conduct a general fisheries assessment through opportunistic angler contacts.
- Salvage fish below South Fork Reservoir spillway after spring runoff as needed.

Objective: Monitor tui chub impacts on the rainbow trout fishery and effectiveness of wipers in controlling tui chub.

Approaches:

- Examine spawning and recruitment potential of black bass by monitoring water temperature variations using digital recording thermograph.
- Examine growth and forage selection in late summer by electroshocking a minimum of 75 black bass.
- Use hook-and-line to collect a minimum of 50 wipers to assess stomach contents.
- Delineate smallmouth bass preferred nesting areas (GPS location, depth, distance from shore, substrate type) during 4 days in spring.
- Set experimental gill nets for four net-nights in the spring.
- Purchase and stock 1,500 wipers and 10,000 channel catfish.

## PROCEDURES

General fisheries assessments consisted of a minimum of two days of creel surveys scheduled per month that documented and analyzed trends exhibited within the primary trout fishery. Data collection included number of anglers in party, location, target species, and harvest. Harvest data included species, size (fork length for trout and total length for all other species), and representative weights, as well as fin clips, marks, and an assessment of condition.

An electrofishing population inventory was accomplished using a Coffelt electrofishing barge. The two fixed-probe electrodes were utilized as anodes and the barge served as the cathode. All fish were netted and held in a live well until completion of the survey. Captured fish were measured (fork length for trout and total length for all other species), weighed, and then released. Electrofisher settings and other relevant information during this inventory are listed below:

### Spring Survey – May 8, 2012

Pulse - DC	Pulse Width(millisecond) – 5	Time – 2020 - 2315
Volts – 480	Pulse Freq.(per sec) – 120	Water Condition – clear, weeds minimal
Output (amps) – 5.5	Shocking Time - 1,916 seconds (31.9 min = 0.54 Hr.)	Water Temp(°F) – 55.5

On May 2, 2012 at 1845 hrs, the first of four gill nets was set in South Fork Reservoir. A 150 ft x 6 ft net was set along the east shoreline mid- to south end of the reservoir near the North Shore Campground. The second net measured 150 ft x 6 ft and was a buoy set along the west side, just off of the shelf. The third net was a buoy set in the northeast side of the reservoir, south of the no-wake buoy boundary. The fourth net measured 150 ft x 6 ft and was set at 1945 hrs off the west shoreline near the last road access. The four nets were fished overnight for total of 53.8 hrs or 13.5 hrs each. Water temperature was recorded at 56°F on May 2 and 54°F on May 3.

A HOBO Water Temp Pro data logger, recording thermograph was installed near the perimeter of the reservoir by the main boat landing from mid-April through October. The thermograph was placed approximately 36 in below the surface off an anchored buoy chain near the main boat landing to allow the thermograph to remain at a consistent depth throughout the season.

Smallmouth bass preferred nesting areas will be delineated through visual surveys from a boat or snorkeling, depending on water clarity.

Wipers were collected by angling, gill netting, and electrofishing in order to monitor food habits and to tag with a numeric yellow Floy tag for documenting growth,

longevity, angler return, and other attributes of the species. A total of 1,250 8 in wipers and 4,500 9.5 in channel catfish were stocked in 2012 from approved commercial sources.

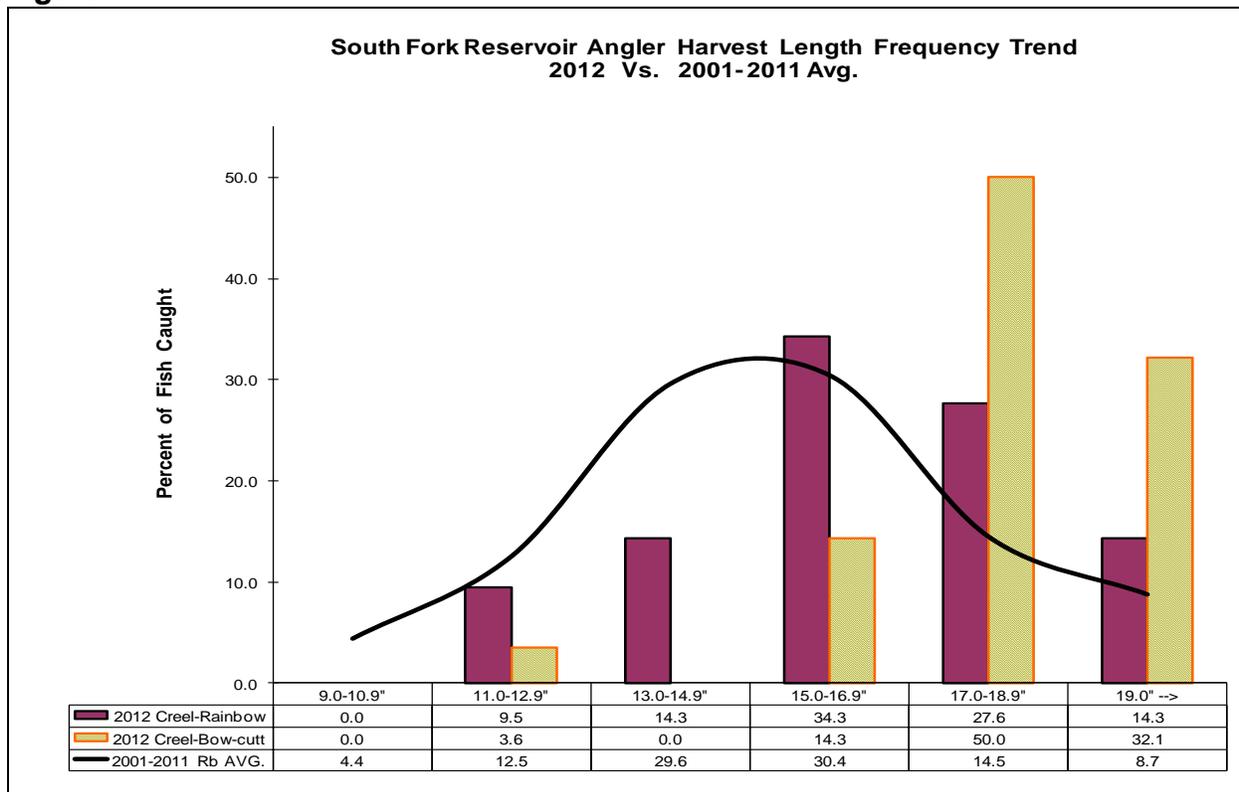
## FINDINGS

### General Sport Fisheries Management

#### Opportunistic Angler Contacts and Surveys

During 2012, 235 anglers were contacted at South Fork Reservoir during 31 days of roving angler surveys (Table 1). A total of 831 hrs of fishing effort was expended to catch 534 fish, of which 358 were released (67% of total catch). Overall angler success was 0.64 fish per hour and 2.27 fish per angler, with the highest catch rate occurring in July at 1.16 fish per hour and a low of 0.16 fish per hour in February.

**Figure 1.**



The average harvest size for 103 rainbow trout measured was 16.4 in (Table 1). Figure 1 illustrates the harvested rainbow trout length frequency and compares it with the ten-year average. Approximately 42% of the rainbow trout were greater than 17.0 in compared to 23.2% from 2001-2011.

Of the 103 rainbow trout measured, 94 were weighed for body condition analysis, resulting in 10.6% in poor condition, 18.4% in fair condition, 42.6% in good condition, and 28.7% in excellent condition. These fish averaged 16.3 in and 2.2 lbs and had a

condition rating of good.

Bowcutt trout also showed a limited, positive return to the angler. For the 28 fish measured, there was excellent growth at an average harvest size of 18.3 in (range from 12.4 - 23.2 in). Figure 1 also illustrates that 82% of the bowcutts harvested were greater than 17.0 in, a total of 21,200 sub-catchable sized (7.3 in) bowcutt trout were stocked in November 2012. This hybrid trout species continues to assist with biological control of non-desirable fish species and increases recreational angling opportunities for larger trout.

Although the overall harvest of warmwater fishes and black bass was relatively low compared to trout, interest in fishing for these species continues, even during the catch-and-release season (March 1 through June 30 for black bass). The average size of black bass was 15.0 in (2 measured), of wipers was 18.1 in (8 measured), and of channel catfish was 15.2 in (2 measured).

Fish stocking for South Fork Reservoir during 2012 resulted in 105,070 catchable trout, 32,410 sub-catchable trout, and 22,540 fingerling trout (Table 2). Approximately 4,500 channel catfish and 1,250 wipers were also stocked.

#### Spillway Channel Fish Salvage

The faulty hydraulic cylinder rams located in the dam outlet and the scheduled spillway seal replacements resulted in discharging reservoir flow through the spillway during 2012. This lowered the spillway and reservoir water elevation to a workable level by 6 vertical feet over the summer. Ocular surveys of the concrete spillway channel and outlet tubes below South Fork Reservoir dam revealed large quantities of game fish present and it was determined that a salvage effort would be made in 2012.

The salvage project within the spillway and outlet tube occurred on January 4 and July 12, 2012 utilizing a backpack electrofisher and the electrofishing barge with two bow netters and a block net placed along the edge of the concrete downstream from the spillway corridor. All game fish were targeted for capture, measured, tagged if applicable, and returned to the reservoir. A total 137 game fish consisting of 1 brown trout at 27.3 in (TL), 25 largemouth bass at 10.6 in, 44 smallmouth bass at 13.3 in, 56 wipers at 20.5 in, and 11 channel catfish at 12.1 in were captured and returned to the reservoir.

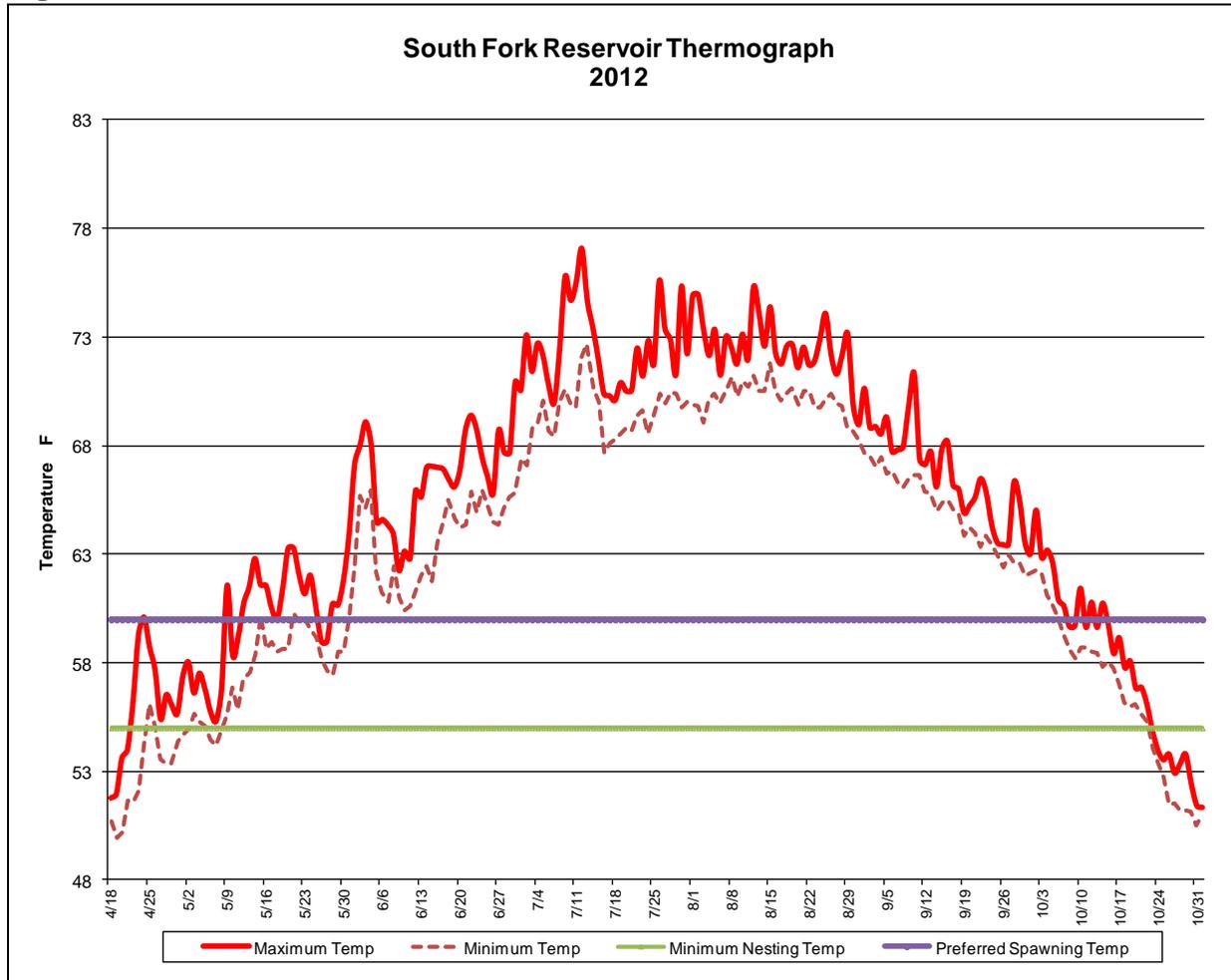
#### South Fork Reservoir Fishery Study

##### Water Temperature Monitoring

A digital recording thermograph was installed in South Fork Reservoir to monitor water temperature for predicting black bass spawning during the spring and summer. Based on recorded temperatures, preferred black bass nesting and subsequent spawning should have been initiated during the second week of May (see Figure 2).

With no deleterious temperature disturbances occurring through late spring, optimum spawning conditions were ensured for largemouth and smallmouth bass. The thermograph recorded a maximum water temperature of 77.1 °F on July 12 and minimum temperature of 49.9°F on April 19, 2012 (Figure 2).

**Figure 2.**



### Sport Fish Population Surveys

A total of 23 smallmouth and 56 largemouth bass were sampled during the 2012 electrofishing survey, with good representation of older age classes for both species. The average size smallmouth bass measured 13.2 in. Smallmouth bass were also weighed for body condition analysis, which revealed a slight decrease in the average rating (5.48) compared to the 2011 value (5.68). Approximately 70% of the smallmouth bass measured were in good to excellent condition; however, condition diminished slightly from the 14-year average value of 5.77 (Table 4). The Relative Stocking Density factor for 10 in fish (RSD-10) equated to 86, indicated a population dominated by larger adult fish (>10 in), resulting from the time of year of the survey.

Largemouth bass sampled were in very good condition, with the largest one measuring in at 19.3 in and weighing in at 6.45 lbs. A total of 56 largemouth bass were sampled, which was comparable to the last three years. Largemouth bass had an average length of 11.8 in and, out of 55; their average weight was 1.23 lbs and the average body condition was 5.57 for a rating of Good.

During the 2012 electrofishing survey, 13 channel catfish were captured that had an average length of 24.8 in and average weight of 5.3 lbs. The largest catfish captured was 27.4 in and weighed 11.1 lbs (Table 3).

Four gill nets were fished overnight for a total of 53.8 hrs or 13.5 hrs each. Water temperature was recorded at 56°F on May 2 and 54°F on May 3. The nets caught a total of 23 rainbow trout, 13 bowcutt trout, 10 wipers, 4 channel catfish, 2 largemouth bass, 2 smallmouth bass, 16 Lahontan tui chubs and 5 Tahoe sucker for a survey total of 75 fish. The rainbow trout ranged in size from 6.4 to 22.2 in and only averaged 11.3 in, bowcutt trout ranged from 9.1 to 18.2 in and averaged 13.1 in, 10 wipers averaged 17 in, largemouth bass averaged 13.1 in, smallmouth bass averaged 10.6 in, and catfish averaged 18.6 in. Tui chub averaged 13.2 in and the Tahoe sucker averaged 14.4 in.

Of the 36 trout captured, 11 (48%) rainbow trout were from the recent spring 2012 stocking effort. K-factor analysis and body condition rating was performed on 14 of the 23 captured rainbow trout. Rainbow trout had an average length of 13.1 in, an average weight of 18.3 oz, and a K-factor value of 3.92 for a rating of good. No fish had a rating of poor, 50% (7 fish) were fair, 43% (6 fish) were good, and 8% (1 fish) received a rating of excellent. Figure 3 compares length frequency of rainbow trout captured in the gill net survey for 2012 with the average from 2007-2011. Smaller trout (9 – 10.9 inches) were caught in 2012 due to recent spring stocking activities.

The overall fish composition of the four nets was trout (rainbow and bowcutt) at 48%, wiper at 14%, channel catfish at 6%, Black bass at 6%, tui chub at 22%, and Tahoe sucker at 7%. The non-game fish to game fish ratio was 0.4 : 1.0, or a percent ratio of 28 to 72 (Figure 4). This trend is well below the 17 year average of 1.4:1.0 non-game to game fish ratio observed in the reservoir.

Bowcutt and or cuttbow trout (rainbow x cutthroat trout hybrid) continued to play an important role in the management of South Fork Reservoir. The 2012 spring gill net surveys captured 13 bowcutt trout, with fish ranging in size from 9.1 in (fall 2011 stock) to 18.2 in (TL), and averaging 13.1 in, similar to the 2011 survey. Applying K-Factor condition values utilizing rainbow trout standards for 13 bowcutts found 8% (1 fish) fish in poor condition, 8% (1 fish) in fair condition, and 84% in good condition (11 fish).

Figure 3.

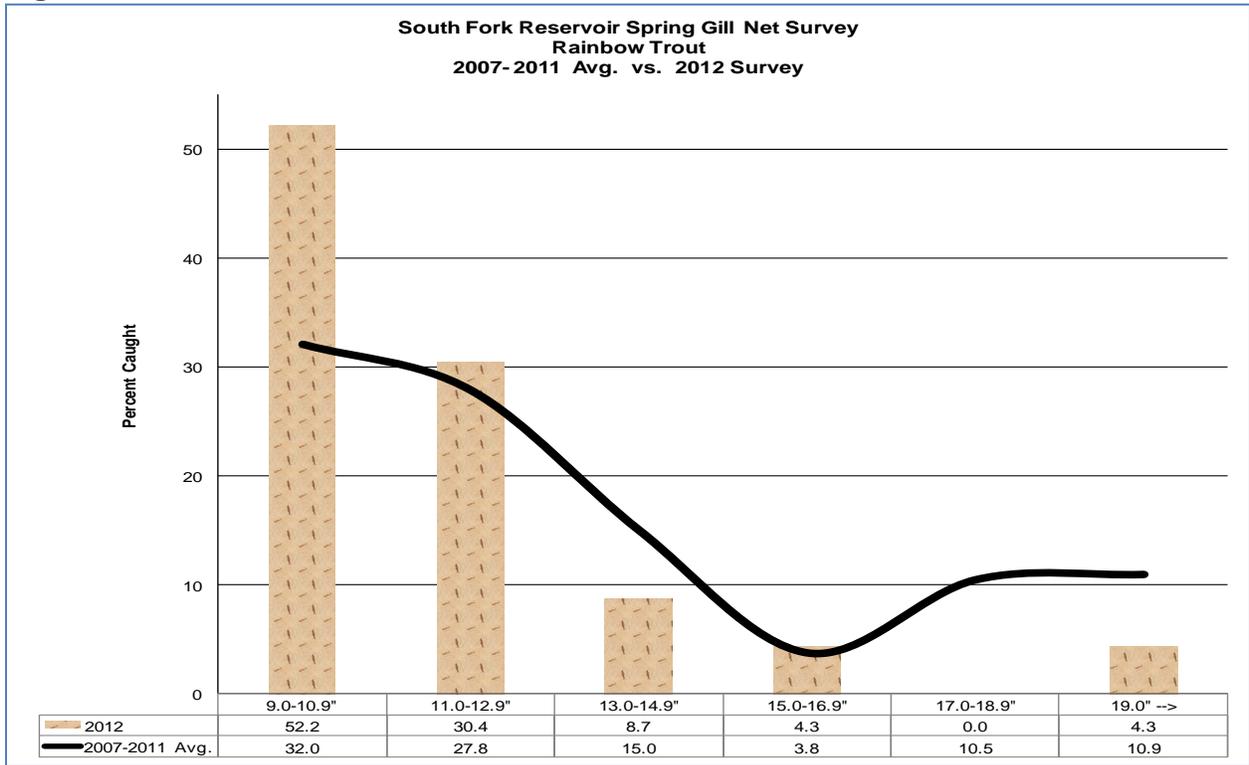
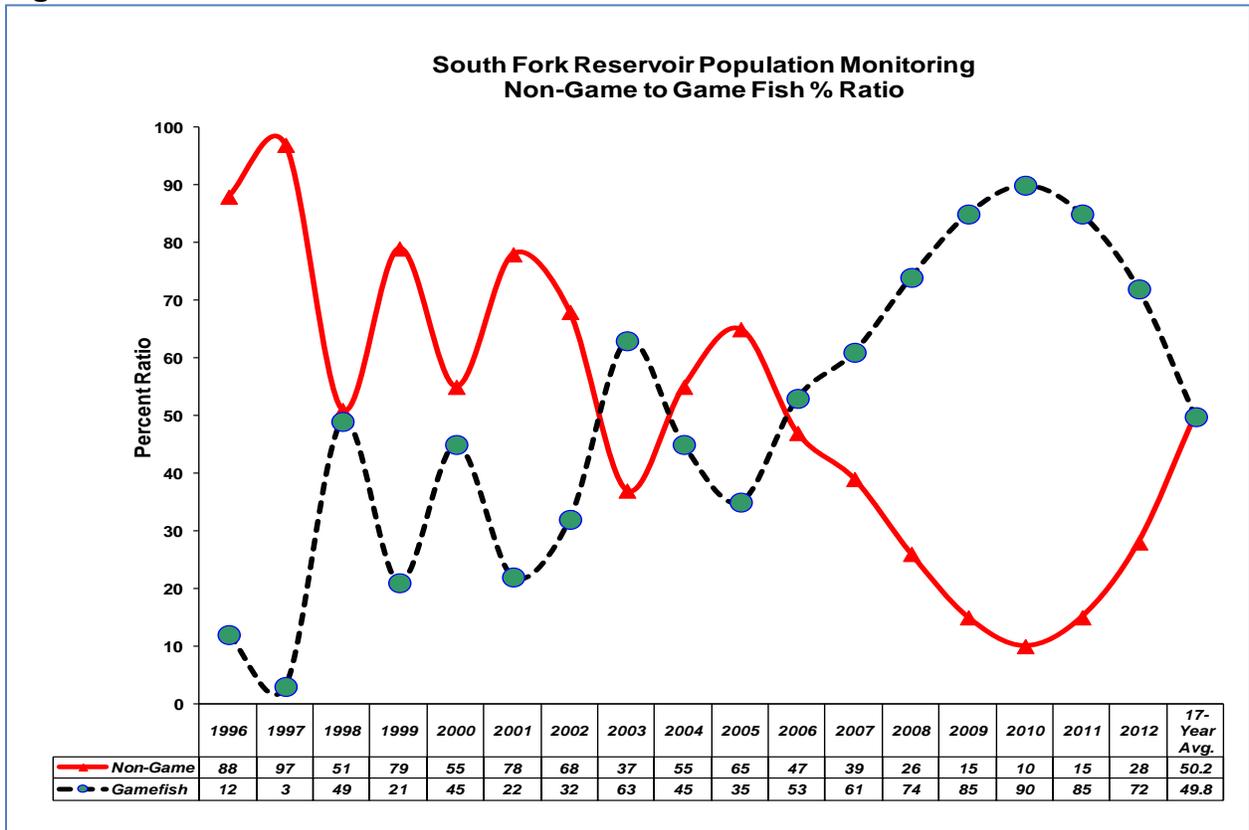


Figure 4.



A total of 10 wipers were caught in the gill net survey and averaged 17.0 in (size range of 12.4 – 22.2 in). All wipers were tagged with a numeric yellow Floy tag that was recorded and placed in the Regional database.

The four channel catfish sampled in the spring gill net survey averaged 18.6 in (size range of 10.9 – 26.0 in) and two smaller fish had grown approximately 4.5 in since being stocked on June 23, 2011. Along with large trout, especially brown and bowcutt trout, black bass, wipers and catfish continued to play an important role in controlling non-game fish populations while providing recreational fishing opportunities for trophy size fish and are vital in the overall management of South Fork Reservoir.

#### Utilize Proven Angling Techniques to Collect a Minimum of 50 Wipers

Over the course of 5 sampling/surveying days during 2012, a total of 85 wipers were contacted, with 83 of these tagged with the numeric yellow Floy tag for future identification. Wipers sampled had an average size of 19.5 in and 61.2 oz (3.8 lbs), with fish ranging in size from 12.5 in (2011 stocked fish) to 24.8 in and a maximum weight of 127.2 oz (7.95 lbs) (Figure 5). The majority of wipers (56 fish) captured in 2012 were tagged during the January and July outlet and spillway fish salvage, 9 fish were tagged during the spring gill net survey and 19 fish tagged during hook-and-line survey and volunteer angler contributions in early spring on the south end of the reservoir.

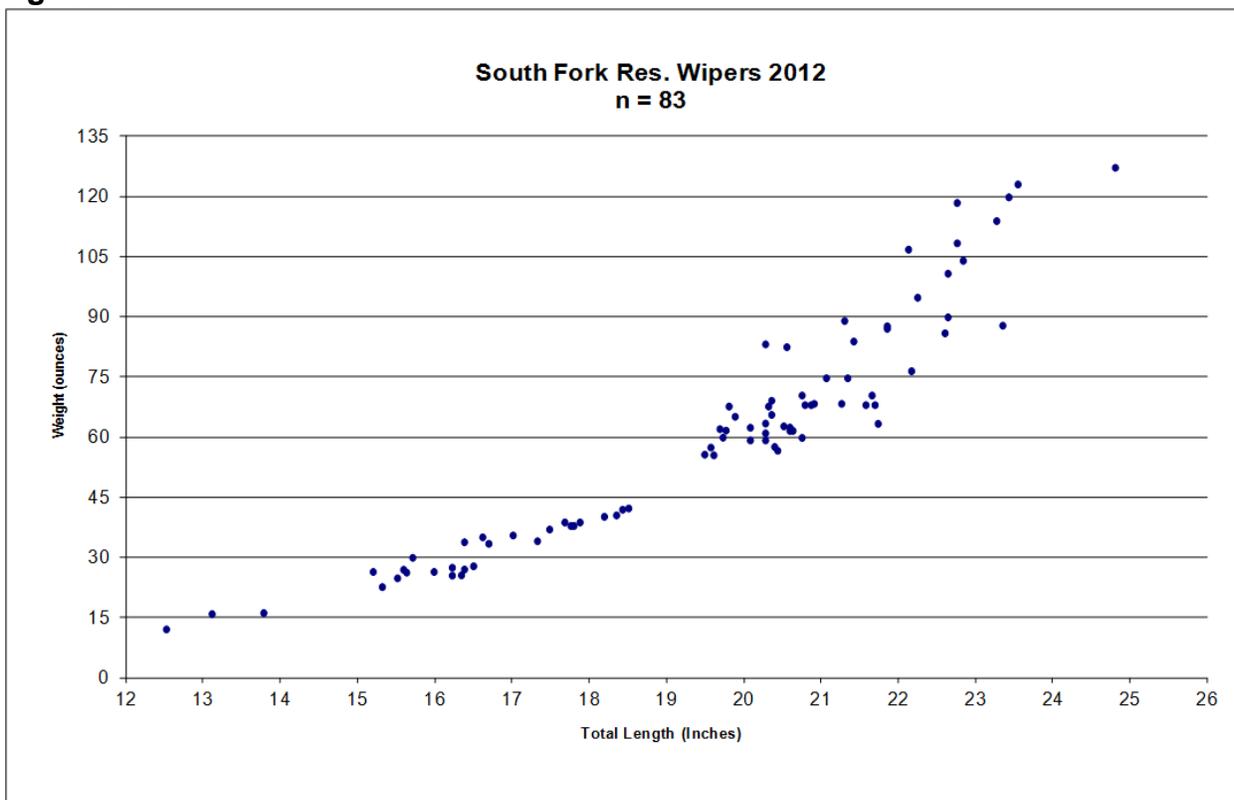
Scales were collected from 8 fish representing 5 different age classes. The oldest scale revealed an age of approximately +6 years at 23.4 in from the June 2, 2006 stocking effort and was tagged during the January 4, 2012 outlet tube salvage project. This fish had grown 16 in (a 200% growth increase since stocking) and had resided in the reservoir for 2,042 days at time of capture. Other fish of similar sizes were placed with their cohorts, with overlap occurring between age classes. Based on the 2012 findings, wipers averaged a growth increase of approximately 2.0 to 3.5 in per year after being stocked. Including the 83 wipers tagged in 2012, a total of 260 wipers have been tagged and released back into South Fork Reservoir over the last five years.

Of the 18 wipers caught angling in 2012, 3 had empty stomachs (16%), while the other 15 had contents ranging from 1 item up to 130 items (*Diptera* larva and pupa in one 15.2 in specimen). Aquatic invertebrates are an important dietary item during the spring of the year until YOY minnows appear in early summer. *Diptera* (Chironomids) made up 95.3% of the total number of food items in the 2012 stomach samples and showed an overall Frequency of Occurrence (FOC) of 64.7%. Other items counted included unidentified (decomposed) fish remains at 5.9% FOC, *Amphipoda* (scuds) at 5.9% FOC, *Odonata* (damselfly and dragon fly nymphs) at 17.6% FOC, and *Annelida* (leeches) at 5.9% FOC. Predation on small fish (tui chub YOY) is the primary management objective for stocking wipers into South Fork Reservoir, and based on the limited findings within the five-year study, they are meeting the management goal of assisting and keeping non-desirable fish populations in check as documented in population surveys.

Recovery of tagged wipers has been limited, with none recovered in 2008, one in 2009, two in 2010, 9 in 2011, and 12 recovered in 2012 for a total of 24 tag returns. Of the 12 tagged wipers reported in 2012, 9 were caught and harvested by anglers and the others were recaptured from NDOW sampling efforts.

The 2012 recovered and or angler reported tagged wipers revealed an average growth of 2.9 in (range of 0.6 to 3.9 in) for an increase of 6.3% in total length since initial tagging. Tagged fish showed an average increase of 9 oz (range from negative 11oz to 18.5 oz) for an average of 21% weight increase since initial tagging date. The nine wipers had an average residency time of 361 (0.99 year) days in the reservoir after tagging.

**Figure 5.**



The water record for wiper at South Fork Reservoir was broken three times in 2012, from a 7 lb 11 oz specimen caught on May 9 to the new record of 13 lb 0 oz at 27.75 in caught on October 24, 2012. Interest in wiper angling continues to increase as word spreads about their great sporting attributes. More angling should assist in increasing the recovery of tagged wipers and provide a better assessment of individuals and the population.

## Warmwater Fish Stocking

South Fork Reservoir received approximately 1,250 wipers that had an average length of 8.0 in on May 17, 2012 (Table 2). This marks the eleventh consecutive year of stocking.

Approximately 4,500 channel catfish that had an average length of 9.6 in were stocked on June 7, 2012 to aid in biological control of non-desirable fish (tui chub). Channel catfish have been stocked regularly since 1989.

### **MANAGEMENT REVIEW**

- Angler surveys were conducted throughout the entire 2012 fishing season with fair to good fishing reported.
- The spillway fish salvage was completed.
- The objective of installing, retrieving, and analyzing recording thermograph data for 2012 was completed.
- The black bass electrofishing survey was completed in late spring.
- Angling for wipers occurred in the spring and summer with marginal success; the spillway salvage effort was very successful in capturing and tagging wipers. Twelve tagged wipers were reported back to the Department and entered into the database.
- Smallmouth bass spawning areas will be delineated in the spring of 2013.
- Population surveys revealed continued success in controlling the non-game fish to game fish ratios and good carry over of planted trout in the spring gill nets.
- Wipers and channel catfish were stocked in the late spring.

### **RECOMMENDATIONS**

- Continue angler surveys and evaluation to develop an accurate assessment of angler use and harvest of all fish species.
- Conduct an electrofishing survey to assess age class distribution, body condition, and Relative Stock Density of the black bass population.
- Continue to monitor reservoir water temperatures in spring to evaluate and predict black bass spawning timing and possible success.
- Continue population sampling to monitor game fish/non-game fish ratios.
- Continue stocking piscivorous fish in an effort to reduce non-game fish abundance.
- Continue the food habit study of wipers in South Fork Reservoir in an effort to determine their impacts upon non-game fish, specifically tui chub.
- Continue wiper and channel catfish augmentation and monitoring/evaluation to provide added control of non-game fish and provide diversified angling opportunities with trophy fish potential.

Prepared by: Chris Drake  
Fisheries Biologist, Eastern Region

Date: February 2013

Table 1

**SOUTH FORK RESERVOIR**  
**2012 Creel Census Angler Use and Harvest Summary**

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Totals
No. Days Checked	3	2	3	2	3	4	4	0	4	2	3	1	31
Avg. Water Temp.	Ice=7"	Ice=5"	42	46	59	66	74		66	53	45	Ice=3"	56.4
No. Anglers Checked	26	5	30	17	22	62	33		5	8	27	0	235
No. of Hours Fished	138	19	75.5	48.5	62.5	262	96.8		16	28.5	84	0	831
Total Fish Caught	50	3	51	49	51	136	112		8	32	42	0	534
Total Fish Harvested:	24	5	14	13	24	24	21		4	16	31	0	176
<i>Rainbow Trout</i>	20	3	11	10	18	21	13		1	13	24	0	134
<i>Brown Trout</i>	0	0	0	0	0	0	0		0	0	0	0	0
<i>Bow-cuttt Trout</i>	4	2	3	3	4	1	2		1	3	7	0	30
<i>Black Bass</i>	0	0	0	0	0	0	2		0	0	0	0	2
<i>Wiper</i>	0	0	0	0	2	2	2		2	0	0	0	8
<i>Channel Catfish</i>	0	0	0	0	0	0	2		0	0	0	0	2

**Average Measured Fish Harvest Size**

<i>Rainbow Trout No.</i>	16	3	10	7	16	15	7	0	1	8	20	0	103
<i>Avg. Size (FL-in.)</i>	18.8	15.2	15.7	18.1	15.7	15.4	14.7		18.1	14.4	16.8		16.4
<i>Brown Trout No.</i>	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Avg. Size (FL-in.)</i>													
<i>Bow-cuttt Trout No.</i>	3	2	3	3	4	1	2	0	1	3	6	0	28
<i>Avg. Size (FL-in.)</i>	17.4	20	17.7	18.5	17.1	20.2	18.2		19.7	18	19		18.3
<i>Black Bass No.</i>	0	0	0	0	0	0	2	0	0	0	0	0	2
<i>Avg. Size (TL-in.)</i>							14.9						14.9
<i>Wiper Bass No.</i>	0	0	0	0	2	2	2	0	2	0	0	0	8
<i>Avg. Size (TL-in.)</i>					15.8	15.2	18.7		22.5				18.1
<i>Channel Catfish No.</i>	0	0	0	0	0	0	2	0	0	0	0	0	2
<i>Avg. Size (TL-in.)</i>							15.2						15.2

**Angler Catch Rate**

Fish / Hour	0.36	0.16	0.68	1.01	0.82	0.52	1.16		0.50	1.12	0.50		0.64
Fish / Angler	1.92	0.60	1.70	2.88	2.32	2.19	3.39		1.60	4.00	1.56		2.27

Table 2

## South Fork Reservoir Fish Stocking

2012

Date	# of Fish Stocked	Pounds	Avg. Size (in.)	Species	# / Pound	Strain	Stocking Location	Water Temp.	Tank Temp.
April 9, 2012	8,400	2,000	8.4	Rainbow Trout	4.2	Eagle Lake	St. Park Boat Launch	48	52
April 10, 2012	8,400	2,000	8.4	Rainbow Trout	4.2	Eagle Lake	St. Park Boat Launch	50	52
April 11, 2012	8,800	2,000	8.3	Rainbow Trout	4.4	Eagle Lake	St. Park Boat Launch	49	54
April 16, 2012	8,800	2,000	8.3	Rainbow Trout	4.4	Eagle Lake	St. Park Boat Launch	50	54
April 18, 2012	22,540	115	2.3	Brown Trout	196.0	Egan	St. Park Boat Launch	48	51
April 19, 2012	8,800	2,000	8.3	Rainbow Trout	4.4	Eagle Lake	St. Park Boat Launch	52	52
April 27, 2012	8,200	2,000	8.5	Rainbow Trout	4.1	Eagle Lake	St. Park Boat Launch	50	52
May 4, 2012	1,600	400	8.5	Rainbow Trout	4.0	Eagle Lake	St. Park Boat Launch	57	52
May 17, 2012	1,250	340	8.0	Wiper	5.0	AR/CO	St. Park Boat Launch	60	63
June 7, 2012	4,500	900	9.5	Channel Catfish	5.0	AR/CO	St. Park Boat Launch	62	62
June 25, 2012	9,600	2,400	8.5	Rainbow Trout	4.0	Jumpers	St. Park Boat Launch	64	54
June 27, 2012	3,500	1,250	9.6	Rainbow Trout	2.8	Eagle Lake	St. Park Boat Launch	66	54
October 18, 2012	11,210	950	6.0	Brown Trout	11.8	Egan	St. Park Boat Launch	58	52
November 1, 2012	7,400	2,000	8.8	Rainbow Trout	3.7	Jumpers	St. Park Boat Launch	53	52
November 2, 2012	7,400	2,000	8.8	Rainbow Trout	3.7	Jumpers	St. Park Boat Launch	48	52
November 5, 2012	7,400	2,000	8.8	Rainbow Trout	3.7	Jumpers	St. Park Boat Launch	51	52
November 7, 2012	10,400	1,600	7.3	BowCutt Trout	6.5	Tahoe/Pyramid	St. Park Boat Launch	49	52
November 13, 2012	7,800	2,000	8.6	Rainbow Trout	3.9	Jumpers	St. Park Boat Launch	49	51
November 15, 2012	10,800	1,600	7.3	BowCutt Trout	6.3	Tahoe/Pyramid	St. Park Boat Launch	48	53
November 20, 2012	8,970	2,300	8.6	Rainbow Trout	3.9	Jumpers	St. Park Boat Launch	47	52
<b>Total Catchable Trout:</b>	<b>105,070</b>	<b>26,350</b>	<i>(x=4.0 fish/pound)</i>				<b>Avg. Water Temp. =</b>	<b>53.0</b>	<b>53.4</b>
<b>Total Sub-catchables Trout:</b>	<b>32,410</b>	<b>4,150</b>							
<b>Total Fingerling Trout:</b>	<b>22,540</b>	<b>115</b>							
<b>Total Warm Water Fish:</b>	<b>5,750</b>	<b>1,240</b>							
<b>TOTALS</b>	<b>165,770</b>	<b>31,855</b>							

BC Trout = 21,200 Sub-Catchable (7.3")

BN Trout = 11,210 Sub-Catchable (6.0") + 22,540 Fingerling (excess fish)

Table 3

## SOUTH FORK RESERVOIR

### Smallmouth Bass Population Status-Electrofishing Survey Trends

Year	Number of Bass / Hour	RSD 10 Factor	C-Factor	Rating
1989	227	N/A - First year of survey - YOY survey		
1990	226	88	5.20	Good
1991	418	0	5.08	Good
1992	108	54	5.47	Good
1993	43	93	5.85	Excellent
1994	31	50	5.48	Good
1995	61	100	5.95	Excellent
1996	130	17	5.62	Excellent
1997	No Data			
1998	268	44	6.03	Excellent
1999	185	43	5.85	Excellent
2000	186	87	6.22	Excellent
2001	224	85	5.86	Excellent
2002	43	92	6.06	Excellent
2003	65	90	6.19	Excellent
2004	144	100	5.87	Excellent
2005	67	71	6.11	Excellent
2006	49	75	5.40	Good
2007	47	56	5.29	Good
2008	202	75	5.53	Good
2009	403	73	5.57	Good
2010	92.5	67	5.36	Good
2011	67	69	5.68	Good
2012	43	86	5.48	Good
<b>1998-2012 Avg.=</b>	<b>139</b>	<b>74</b>	<b>5.77</b>	<b>Excellent</b>

**RSD 10** = # of fish > 254mm (relative quality catch length) / **Total** # of fish > 203 mm (= minimal stock length 8.0 inches)

**RSD 10** between 40 and 60 is desired, indicating a balanced population.

Special regulation in effect at South Fork Reservoir (15 inch minimum size, legal harvest from 7/1-2/29).

**Table 4**

SOUTH FORK RESERVOIR  
Population Sampling Catch Record - Gill Net  
2012

	Net/Sample #	#1-4	Electrofish		
	Date:	05/2/2012	05/8/2012		
SPECIES				TOTALS	% of Species Composition
<i>Rainbow Trout</i>	Number	23	1	<b>24</b>	14.3
	Avg. Size (Inches-FL)	11.3	16.3	<b>11.5</b>	
<i>Bow-Cutt Trout</i>	Number	13	0	<b>13</b>	7.7
	Avg. Size (Inches-FL)	13.1		<b>13.1</b>	
<i>Smallmouth Bass</i>	Number	2	23	<b>25</b>	14.9
	Avg. Size (Inches-FL)	10.6	13.2	<b>13.0</b>	
<i>Largemouth Bass</i>	Number	2	56	<b>58</b>	34.5
	Avg. Size (Inches-TL)	13.1	11.8	<b>11.8</b>	
<i>Wiper</i>	Number	10	0	<b>10</b>	6.0
	Avg. Size (Inches-TL)	17.0		<b>17.0</b>	
<i>Channel Catfish</i>	Number	4	13	<b>17</b>	10.1
	Avg. Size (Inches-TL)	18.6	24.8	<b>23.3</b>	
<i>Lahontan tui chub</i>	Number	16		<b>16</b>	9.5
	Avg. Size (Inches-TL)	13.2		<b>13.2</b>	
<i>Tahoe Sucker</i>	Number	5		<b>5</b>	3.0
	Avg. Size (Inches-TL)	14.4		<b>14.4</b>	
TOTAL FISH		75	93	<b>168</b>	
HOURS		53.8	0.5	<b>54.3</b>	
% Non-desirable Fish		28.0	0.0	<b>28.0</b>	
Fish / Net-Shocking Hour		1.39	175.5	<b>176.9</b>	
Avg. Res. Water Temp. (F°)		54.5	56.0	<b>55.3</b>	

**Net/Sample Locations:**

1. North Camp ground point. Experimental Mesh gill net, 150 feet long.
2. North of Jet Ski Beach, off of Ledge, Buoy set. Experimental Mesh gill net, 150 feet long.
3. South of Buoy line, North-East side of reservoir, Buoy set. Experimental Mesh gill net, 150 feet long.
4. West side, near last road access. Experimental Mesh gill net, 150 feet long.
5. Electrofish transects included East Coves, Jet Ski Beach Mote and Spillway/Dam face. Numerous large chubs contacted but not measured or counted.