

NEVADA DEPARTMENT OF WILDLIFE  
STATEWIDE FISHERIES MANAGEMENT



FEDERAL AID JOB PROGRESS REPORTS

F-20-49  
2013

SPOONER LAKE  
WESTERN REGION



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

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

**State:** *Nevada*  
**Project Title:** *Statewide Fisheries Program*  
**Job Title:** *Spooner Lake*  
**Period Covered:** *January 1, 2013 through December 31, 2013*

**SUMMARY**

A total of 70 volunteer angler surveys from the drop-box were received from Spooner Lake in 2013. During the months when surveys were received, 67 anglers fished for 210.5 hrs and caught 407 fish consisting of 353 rainbow trout, 35 tui chub, 10 brown trout, and 9 tiger trout. Catch rates (all fish) were 6.08 fish per angler and 1.93 fish per hour.

The Main-In Angler Questionnaire Survey estimated use at 860 anglers and 1,758 angler days in 2012. Total catch was 11,865 fish and the success rate was 6.75 fish per angler day. Most estimates from the angler survey were on par with results found in 2011 and all estimates were greater than the 33-year (1980 – 2012) average for the reservoir.

Spooner Lake was stocked on eight occasions in 2013. The reservoir received a total of 9,815 catchable rainbow trout, 2,000 catchable bowcutt trout, 6,008 fingerling tiger trout, 2,030 sub-catchable tiger trout.

The Angler Information Center and drop-box were updated and restocked throughout the year.

**BACKGROUND**

Spooner Lake is a shallow reservoir at an elevation of 6,980 ft above MSL that lies on the east side of the Tahoe Basin within the Lake Tahoe State Park. The reservoir covers approximately 100 SA and has a maximum depth of 22 ft. The original dam was built in 1927 in Spooner Meadow as a means for storing irrigation water. The reservoir is fed by a number of springs and seeps as well as snowmelt runoff from the surrounding hills. The Spooner Lake outflow drains into North Canyon Creek, which then discharges directly into Lake Tahoe. Because of extensive leakage, a new dam was constructed in 1982. Maximum reservoir capacity is never realized in order to preserve Native American artifacts, which become submerged when the reservoir reaches capacity.

Lahontan tui chub is presumably the only fish historically occurring in Spooner Lake. The fishery is currently comprised of hatchery maintained populations of rainbow, bowcutt, brown, and tiger trout. When available, brook trout are stocked.

From 1982 to 2005, Spooner Lake was managed as a catch-and-release fishery with strict regulations (zero-harvest, single lure or fly with barbless hook) to manage for a trophy trout fishery. However, due to the reservoir's characteristics, there was potential for extensive trout winterkill. Because of this, coupled with an expanding tui chub population, a trophy trout fishery was never realized. In 2006, regulation changes were implemented to allow for management under the Coldwater General Fishery Management Concept, which established objectives for angler success rates of 0.30 to 1.25 fish per hour and 2.0 to 3.5 fish per angler day.

## OBJECTIVES

General Management Objectives:

- Conduct a general assessment of angler use, success, and harvest through opportunistic angler contacts, return of angler drop-box surveys and mail-in angler questionnaire data.
- Maintain the angler information center and angler drop-box when on site.

## PROCEDURES

**Conduct a general assessment of angler use, success, and harvest through opportunistic angler contacts, return of angler drop-box surveys and mail-in angler questionnaire data.** Opportunistic visits are made to Spooner Lake throughout the year subsequent to other field activities. When anglers are contacted, information on angler harvest, effort, and origin are recorded. Harvested fish are measured to fork length in millimeters.

During the course of other duties throughout the year, a volunteer angler survey box at Spooner Lake is periodically maintained and restocked. At the end of the calendar year, data is summarized.

Angler use and success at Spooner Lake is also assessed through the Department's Mail-In Angler Questionnaire Survey data. Angler questionnaire data is derived from a survey mailed to about 10 percent of license purchasers from the previous year.

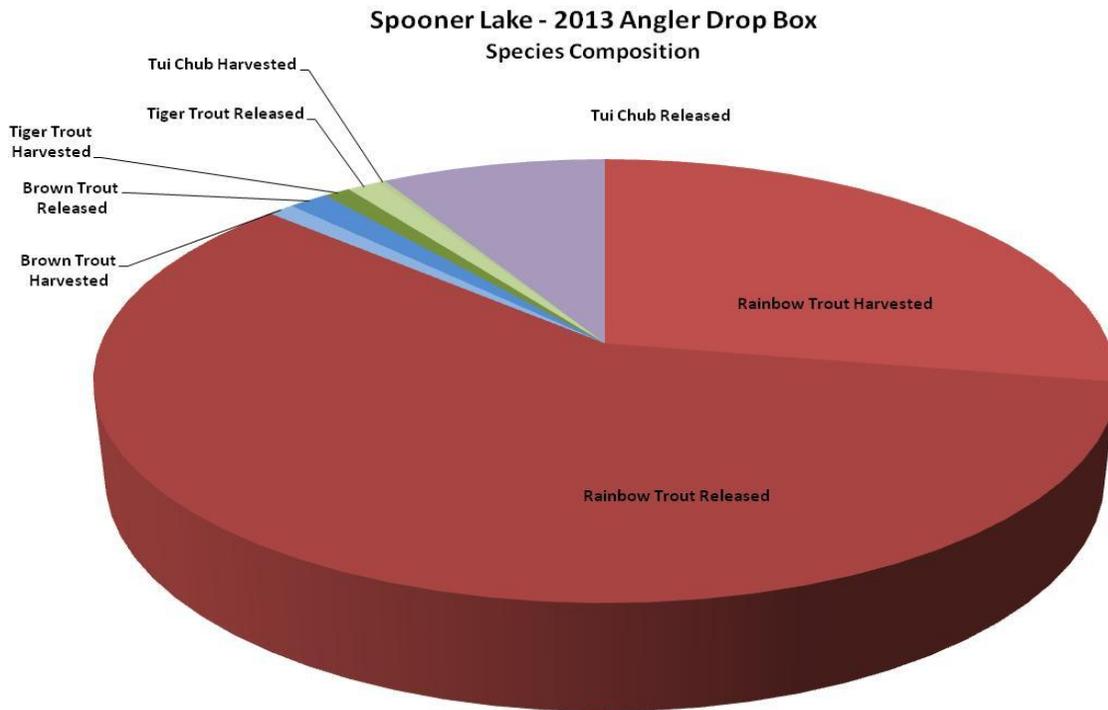
**Maintain the angler information center and angler drop-box when on site.** When on site, both the angler drop-box and angler information center at Spooner Lake are checked. The drop-box is restocked with survey forms while information at the angler information center is updated.

## FINDINGS

**Conduct a general assessment of angler use, success and harvest through opportunistic angler contacts, return of angler drop-box surveys and mail-in angler questionnaire data.** No opportunistic angler contacts were made at Spooner Lake in 2013.

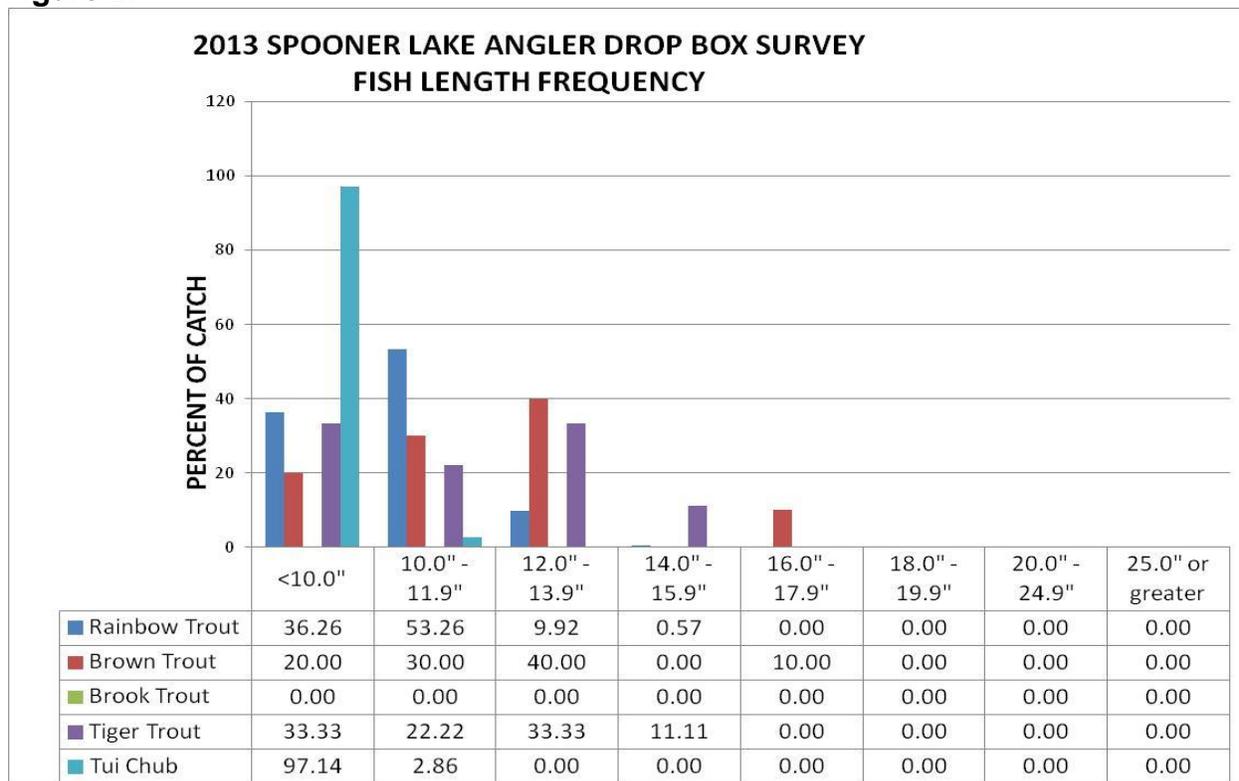
A total of 70 volunteer angler surveys from the drop-box were received from Spooner Lake in 2013. During the months when surveys were received, 67 anglers fished for 210.5 hrs and caught 407 fish consisting of 353 rainbow trout, 35 tui chub, 10 brown trout, and 9 tiger trout. Catch rates (all fish) were 6.08 fish per angler and 1.93 fish per hour. Of the 407 fish reported, 30.0% were harvested while the remaining 70.0% were reported as released. Species composition for 2013 was 86.7% rainbow trout, 8.6% tui chub, 2.5% brown trout, and 2.2% tiger trout (Figure 1).

**Figure 1.**



A length frequency analysis of fish reported through the drop-box survey shows that over 97% of tui chub were less than 10.0 in (Figure 2). Because growth by stocked trout has never been substantial in the reservoir, it is not surprising that a vast majority of trout reported occupy the smallest three length brackets (<10.0 in, 10.0-11.9 in, and 12.0-13.9 in). Nearly 90% of rainbow trout were represented in the smallest two size brackets while both tiger trout and brown trout were fairly equally distributed among the smallest three size brackets.

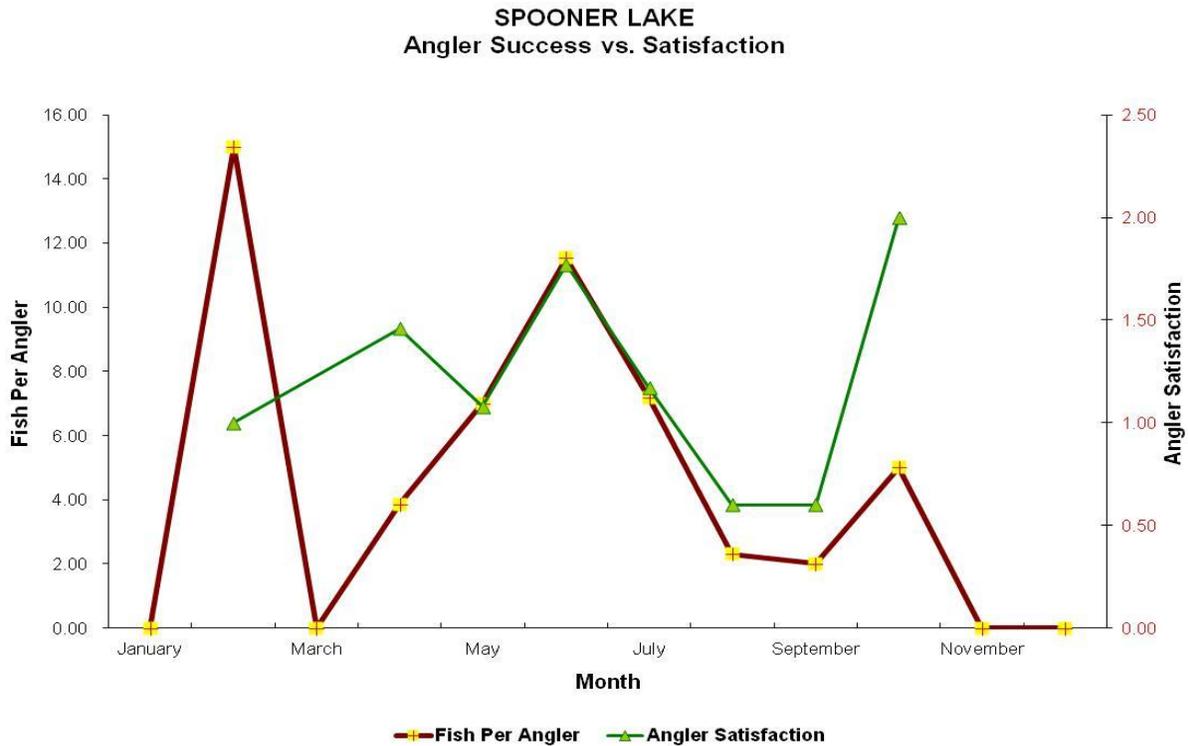
**Figure 2.**



A majority of anglers at Spooner Lake (65.7%) reported using lures, while the remaining 34.3% reported fly-fishing. Angler satisfaction in 2013 was rated on a scale of -2 to +2 with -2 being unsatisfied and +2 representing satisfaction. Average ratings were positive at 1.21 for total fishing experience, 0.51 for size of fish, and 1.01 for number of fish. Average angler satisfaction appeared to correspond to the average number of fish caught per angler (Figure 3). This means that an increase in angling success generally leads to an increase in angler satisfaction. Peaking in June, angler success steadily decreased throughout the year. This comes as no surprise as aquatic vegetation that begins growing in late spring reaches nuisance levels by mid-summer, rendering the reservoir nearly unfishable.

The Main-In Angler Questionnaire Survey estimated use at 860 anglers and 1,758 angler days in 2012. Total catch was 11,865 fish and the success rate was 6.75 fish per angler day. Most estimates from the angler survey were on par with results found in 2011 and all estimates were greater than the 33-year (1980 – 2012) average for the reservoir. An exception was the number of anglers, which was the highest since 1996 and the third highest in the history of the questionnaire.

Figure 3.



### Stocking Program

Spooner Lake was stocked on eight occasions in 2013 (Table 1). The reservoir received a total of 9,815 catchable rainbow trout, 2,000 catchable bowcutt trout, 6,008 fingerling tiger trout, 2,030 sub-catchable tiger trout.

**Table 1.** Spooner Lake Stocking Summary – 2013

Date	Species	Number	Size (in.)	Strain
4/24/13	Rainbow	2,502	10.1	Mt. Shasta
5/14/13	Rainbow	2,609	10.5	Mt. Shasta
6/10/13	Rainbow	1,000	10.2	Triploid
6/24/13	Rainbow	1,701	9.2	Triploid
9/10/13	Rainbow	2,003	9.7	Jumper
<b>Rainbow Total</b>		<b>9,815</b>	<b>9.2 – 10.5</b>	
6/10/13	Tiger	6,008	3.0	Tiger
9/11/13	Tiger	2,030	6.6	Tiger
<b>Tiger Total</b>		<b>8,038</b>	<b>3.0 – 6.6</b>	
9/10/13	Bowcutt	2,000	10.4	Bowcutt
<b>Bowcutt Total</b>		<b>2,000</b>	<b>10.4</b>	
<b>Total (All Fish)</b>		<b>19,853</b>		

**Table 2.** Spooner Lake Stocking History 2008 – 2012

Year	Species	Number	Size Range (in.)
2008	Tiger	1,010	7.9
<b>2008 Total</b>		<b>1,010</b>	
2009	Rainbow	999	10.1
	Tiger	527	7.1
<b>2009 Total</b>		<b>1,526</b>	
2010	Rainbow	999	10.2
	Tiger	1,522	11.4
<b>2010 Total</b>		<b>2,521</b>	
2011	N/A	0	N/A
<b>2011 Total</b>		<b>0</b>	
2012	Rainbow	1,097	10.2 – 10.3
	Tiger	1,050	11.3
<b>2012 Total</b>		<b>2,147</b>	
<b>Total</b>		<b>7,204</b>	

**Maintain the angler information center and angler drop-box when on site.** When on site, both the angler drop-box and angler information center at Spooner Lake were checked. The drop-box was restocked with survey forms while information at the angler information center was updated.

### **MANAGEMENT REVIEW**

Angler success rates documented from both the angler drop-box survey and Main-in Angler Questionnaire Survey exceed the guidelines prescribed in the Coldwater General Fishery Management Concept. This fishery is generally popular with anglers for producing high catch rates and an opportunity to fish in a picturesque setting. Fish size is generally small due to very limited carryover of trout species from one year to the next.

Habitat conditions at Spooner Lake remain stable from year to year due to the dependable spring sources that supply the water. Fishing opportunities remain good in the early spring and late fall when water temperatures are cooler and aquatic vegetation is less abundant.

### **RECOMMENDATIONS**

General Management Objectives:

- Conduct a general assessment of angler use, success, and harvest through opportunistic angler contacts, return of angler drop-box surveys and mail-in, angler questionnaire data.
- Maintain the angler information center and angler drop-box when on site.

Prepared By: Chris Crookshanks  
Biologist III – Western Region

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