

NEVADA DEPARTMENT OF WILDLIFE  
STATEWIDE FISHERIES MANAGEMENT



FEDERAL AID JOB PROGRESS REPORTS

F-20-54  
2018

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, 2018 through December 31, 2018*

**SUMMARY**

In 2018, 56 angler drop-box surveys were completed. Anglers reported fishing for 152.5 hrs and caught 398 fish consisting of 273 rainbow trout, 102 tui chub, 9 brown trout, 8 brook trout, and 6 tiger trout. Combined catch rates (for all species) averaged 7.8 fish per angler and 2.6 fish per hour. The Angler Information Center and drop-box were updated and restocked throughout the year.

The Mail-In Angler Questionnaire Survey estimated use from 715 anglers for 1,002 angler-days in 2017. Total catch was 2,059 fish and anglers showed a success rate of 2.1 fish per angler-day, both of which were lower than the long-term (36-year) average.

Spooner Lake was stocked on two occasions, receiving 4,702 catchable trout consisting of 4,000 rainbow trout and 702 tiger trout.

**BACKGROUND**

Spooner Lake is a shallow reservoir at an elevation of 6,980 ft that lies on the east side of the Tahoe Basin within Lake Tahoe State Park. The reservoir covers approximately 100 SA and has a maximum depth of 22 ft. Maximum reservoir capacity is never realized in order to preserve Native American artifacts, which become submerged when the reservoir reaches capacity. 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 outflow of the lake drains into North Canyon Creek, which then discharges directly into Lake Tahoe. Because of extensive leakage, a new dam was constructed in 1982.

Lahontan tui chub was presumably the only fish historically occurring in Spooner Lake. Aside from Lahontan tui chub, the fishery is currently comprised of hatchery maintained populations of, rainbow, bowcutt, brown, and tiger trout and a self-sustaining population of brook trout.

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 winterkills of trout 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

- 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.
- Conduct gill net surveys for two net nights in the fall.

## 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.** Spooner Lake has one volunteer, angler drop-box located near the dam. Completed surveys were collected periodically and summarized at the end of the year.

Angler use and success at Spooner Lake was assessed through the Department's Mail-In Angler Questionnaire Survey. Angler questionnaire data was derived from a survey mailed to 30,000 fishing license purchasers from the previous year (2017).

**Maintain the angler information center and angler drop-box when on site.** When on site, the drop-box was restocked with survey forms. The display at the angler information center was updated in early spring and repairs were made to the kiosk to improve its appearance.

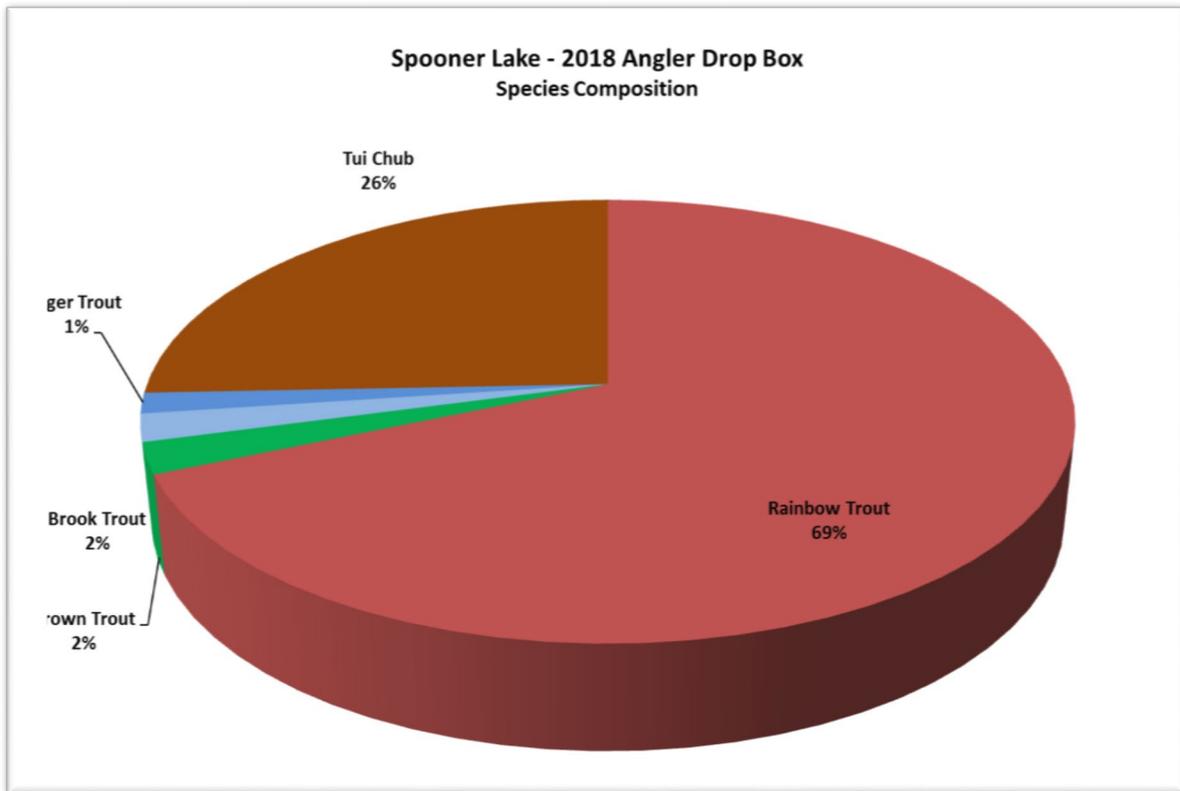
**Conduct gill net surveys for two net nights in the fall.** Due to other responsibilities taking priority, this objective was not completed. However, the fish population was recently monitored last year.

## 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 angler contacts were made at Spooner Lake in 2018.

In 2018, 56 angler drop-box surveys were completed. Anglers reported fishing for 152.5 hrs and caught 398 fish consisting of 273 rainbow trout, 102 tui chub, 9 brown trout, 8 brook trout, and 6 tiger trout. Catch rates combined for all species averaged 7.8 fish per angler and 2.6 fish per hour. Anglers harvested 12.8 percent of the fish caught, with all but one (a tiger trout) being rainbow trout. The percent composition of species caught was 69 percent rainbow trout, 26 percent tui chub, 2 percent brown trout, 2 percent brook trout, and 1 percent tiger trout (Figure 1).

**Figure 1.**



Of anglers that fished in 2018, tackle type use was fairly evenly distributed with 41.2% reporting lures, 25.5% fly fishing, and 33.3% using bait. Angler satisfaction in 2018 was rated on a scale of -2 to +2 with -2 being unsatisfied and +2 representing satisfaction. Average survey ratings from April through October were all positive at 0.88 for fishing experience, 0.42 for size of fish, and 0.70 for number of fish. All ratings were in line with the 6-year averages of 0.9, 0.33, and 0.63, respectively. Data showed that 77% of the anglers fished from shore while the remaining 23% fish from a boat or float tube.

The Mail-In Angler Questionnaire Survey estimated use from 715 anglers at 1,002 angler-days in 2017. Anglers caught 2,059 fish and for a success rate of 2.1 fish per angler-day, both of which are lower than the long-term (36-year) average for the lake. This was partly attributed to a shorter angling season (due to ice and weather conditions) and cooler water temperatures experienced in 2017.

### Stocking Program

Spooner Lake was stocked on two occasions, receiving 4,702 catchable trout consisting of 4,000 rainbow trout and 702 tiger trout (Table 1). These stocking rates fell within the range of fish stocked annually since 2009 (Table 2).

**Table 1. Spooner Lake Stocking Summary, 2018**

Date	Species	Number	Size (in.)	Strain
5/14/2018	Rainbow	4,000	8.5	Resistant
<b>Rainbow Total</b>		<b>4,000</b>		
10/9/2018	Tiger	702	9.4	Tiger
<b>Bowcutt Total</b>		<b>702</b>		
<b>Total (All Fish)</b>		<b>4,702</b>		

**Table 2. Spooner Lake Stocking History, 2009 – 2017**

Year	Species	Number	Size Range (in.)
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>	
2013	Rainbow	9,815	10.2
	Tiger	8,038	10.1
	Bowcutt	2,000	7.1
<b>2013 Total</b>		<b>19,853</b>	
2014	Rainbow	9,274	9.7 - 9.8
	Tiger	1,074	10.3
<b>2014 Total</b>		<b>10,348</b>	
2015	Rainbow	5,144	7.8 - 8.5
	Tiger	1,001	9.3
	Cuttbow	2,018	9.5
<b>2015 Total</b>		<b>8,163</b>	
2016	Rainbow	5,546	8.1 - 9.6
	Tiger	1,004	10
	Cuttbow	2,019	9.2
<b>2016 Total</b>		<b>8,569</b>	
2017	Rainbow	3,965	8.3 - 9.5
	Tiger	1,501	11.4
	Cuttbow	2,019	9.2
<b>2017 Total</b>		<b>7,485</b>	
<b>Total</b>		<b>60,612</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 were checked. The drop-box was restocked with survey forms while information at the angler information center was updated with current year information in May.

**Conduct gill net surveys for two net nights in the fall.** Due to other responsibilities taking priority, this objective was not completed in 2018. This objective will be carried forward to 2019.

## **MANAGEMENT REVIEW**

Angler success rates documented from both angler drop-box survey and Mail-in Angler Questionnaire Survey met or exceeded the guidelines prescribed in the Coldwater, General Fishery Management Concept. The Spooner Lake fishery is generally popular with anglers for producing elevated catch rates and an opportunity to fish in a picturesque setting. The size of trout is generally small due to very limited carryover from one year to the next, however, certain species appear to grow and survive better than others. Fishing opportunities remain good for the majority of the spring, summer, and fall months with aquatic vegetation making shore angling somewhat difficult in the later months. Continued stocking of both tiger and cuttbow trout is recommended as they both have shown respectable growth rates in the lake. The piscivorous nature of tiger trout also functions to control the large tui chub population in the lake.

## **RECOMMENDATIONS**

- 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.
- Conduct a gill net survey for two net-nights in the fall.

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