

NEVADA DEPARTMENT OF WILDLIFE
STATEWIDE FISHERIES MANAGEMENT



FEDERAL AID JOB PROGRESS REPORTS

F-20-54
2018

HOBART RESERVOIR
WESTERN REGION



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

Table of Contents

<u>Contents</u>	<u>Page</u>
SUMMARY	1
BACKGROUND	1
OBJECTIVES	2
PROCEDURES	2
FINDINGS	2
MANAGEMENT REVIEW	5
RECOMMENDATIONS	6

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

State: *Nevada*
Project Title: *Statewide Fisheries Program*
Job Title: *Hobart Reservoir*
Period Covered: *January 1, 2018 through December 31, 2018*

SUMMARY

The 2017 Mail-in Angler Questionnaire Survey estimated 331 anglers fished 564 days. Anglers caught 2,377 fish showing a success rate of 4.2 fish per angler-day. Estimates for number of anglers and angler use were well below long-term averages for the water (382 and 877, respectively).

The volunteer drop-box received 160 angler surveys from May through September. Anglers fished 600 hrs and reported catching 2,170 fish consisting of 430 rainbow trout, 1,101 brook trout, 40 bowcutt trout, and 599 tiger trout. Resulting catch rates (all fish) were 14.7 fish per angler and 3.6 fish per hour with 3.8 percent of the fish harvested.

The winter of 2017/2018 produced a healthy amount of moisture and resulted in Hobart Reservoir being maintained at full pool during 2018. Access to the reservoir, which was restricted due to a road washout in 2017, was repaired and reopened near the beginning of the 2018-fishing season. Angler use and catch rates were improved immensely from the 2017 fishing season. The road will be closed each winter moving forward and opened in the spring when conditions permit.

BACKGROUND

Hobart Reservoir is located in the Toiyabe National Forest at an elevation of 7,650 ft in the Carson Range. The reservoir is surrounded by a conifer and aspen dominated forest. Hobart Creek, fed by snowmelt as well as spring sources, is the main tributary to the reservoir. The initial dam was completed in 1877 and was subsequently rebuilt in 1956 after a washout the previous year. The State of Nevada currently owns the reservoir. The present reservoir covers approximately 10 SA, stores 110 acre-ft of water, and has a maximum depth of 15 ft.

Hobart Reservoir supports hatchery maintained populations of rainbow trout, bowcutt trout, and tiger trout. Brook trout are abundant and self-sustaining. The reservoir was opened to public fishing in 1981 and it is managed under a Coldwater General Fishery Management Concept, which establishes an objective for angler success rates of 0.25 to 0.75 fish per hour and 1.0 to 2.0 fish per angler day.

Access to the reservoir, which was restricted in 2017 due to the road washing out, was repaired and reopened near the beginning of the fishing season in 2018. In order to prevent further damage to the road during wet conditions by motorized vehicles, Carson City Parks, Recreation, and Open Space Department, who is responsible for maintaining

the road, has decided to close the gate at the lower end during winter. It will reopen in the spring when travel conditions permit.

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.

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. While completing other work at the reservoir, two anglers were contacted during the 2018 field season. Information on angler use and success was supplemented with returns of angler drop-box surveys and the Department's Mail-In Angler Questionnaire Survey results. The drop-box also collected angler satisfaction rates, which are based on a scale from -2 (not satisfied) to 2 (satisfied). Participating anglers are asked to rate their fishing experience, size of trout, and number of trout. Angler questionnaire data was derived from a survey mailed to 30,000 Nevada fishing license purchasers and is delayed a year to allow anglers to respond.

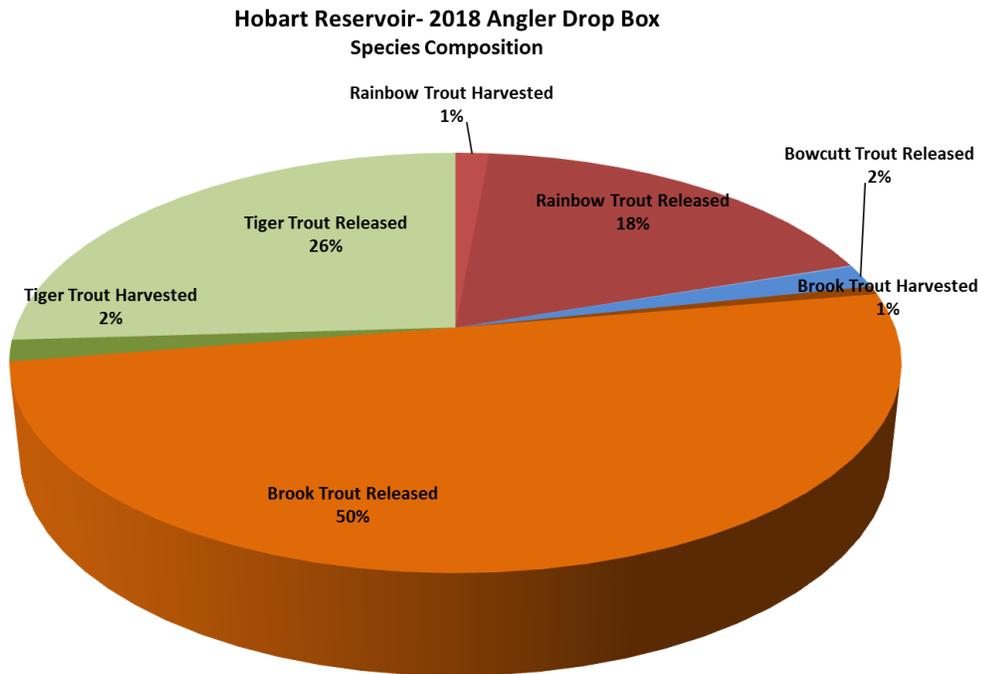
Maintain the Angler Information Center and angler drop-box when on site. One scheduled visit was made to Hobart Reservoir in the spring prior to the season opening to maintain the angler information center and angler drop-box. The information center was updated with current fishing/lake information and the drop-box was fully stocked with forms and pencils in preparation of the 2018 season. Subsequent trips were made throughout the season to ensure the drop-box remained stocked.

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. The drop-box received 160 angler surveys from May through September. Anglers fished 600 hrs and reported catching 2,170 fish consisting of 430 rainbow trout, 1,101 brook trout, 40 bowcutt trout, and 599 tiger trout (Figure 1). Resulting catch rates (all fish) were 14.7 fish per angler and 3.6 fish per hour, with 3.8 percent of the fish being harvested.

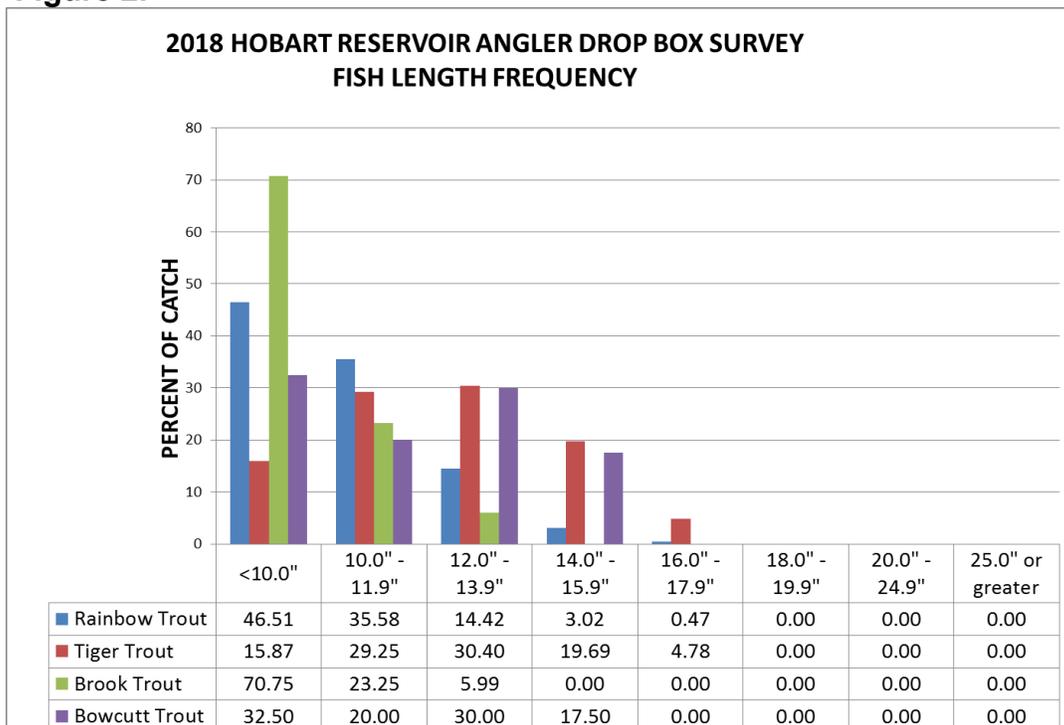
As is common in Hobart Reservoir, brook trout made up the majority of the smallest size class, while angler caught rainbow, bowcutt, and tiger trout occurred in most size classes. Rainbow and tiger trout were the only species that were represented within the largest size class (16.0 to 17.9 in.) Hobart Reservoir is characterized as having an extremely short growing season, very cold water, and a limited forage base, and because of this, fish rarely grow to larger than 18.0 in.

Figure 1.



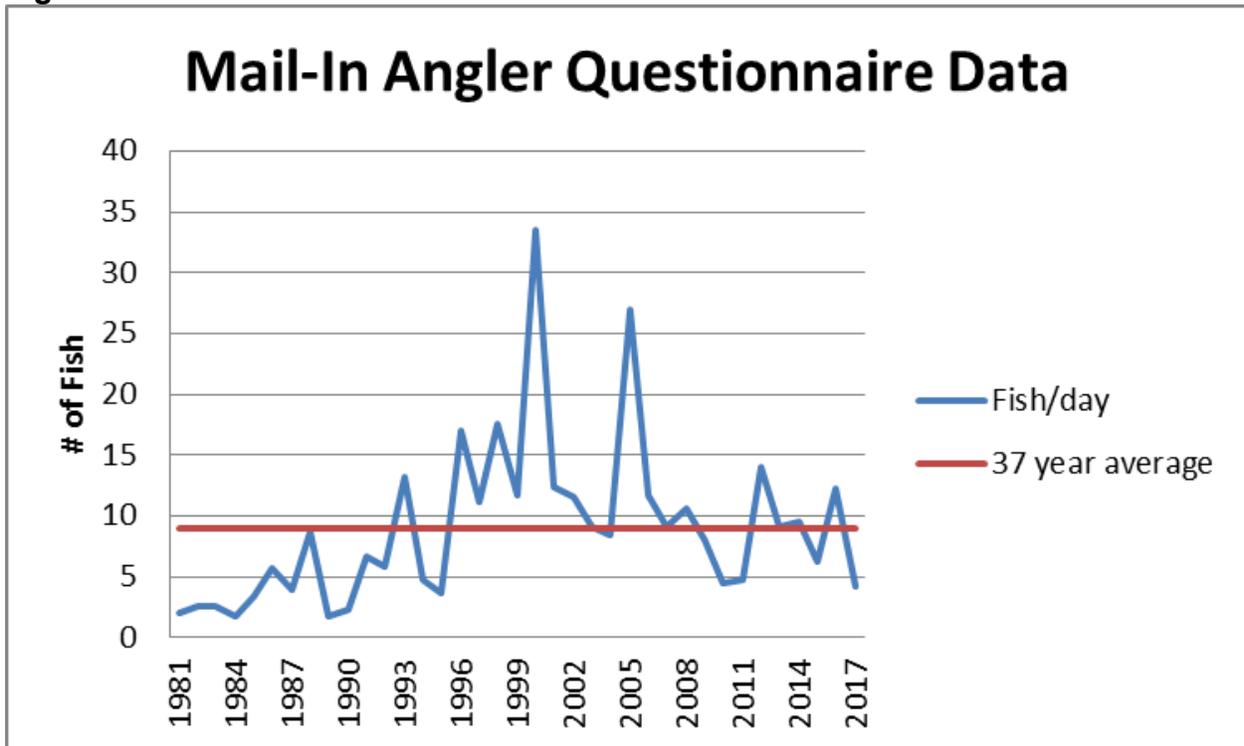
The 2018 angler satisfaction ratings were positive, with fishing experience consistently rating the highest for an average of 1.5, followed by number of trout averaging 1.2, and size of trout averaging 1.1. These were equal to or higher than the 7-year average satisfaction ratings for the water body.

Figure 2.



The mail-in angler questionnaire estimated 331 anglers fished 564 days in 2017. Anglers caught 2,377 fish showing a success rate of 4.2 fish per angler-day. Estimates for number of anglers and angler days were well below the long-term average for the water (382 and 877, respectively). The catch rate of 7.1 fish per angler was also lower than the 37-year average of 21.7 as was fish per day (see Figure 4). The decline in the 2017 angler success can be attributed to the winter of 2016/2017, which brought a record snowpack to the Carson Range and limited travel to the reservoir during the entire fishing season. The access road to Hobart Reservoir was repaired and reopened in 2018. Hobart Reservoir continues to provide an above average fishery for the public willing hike (about 1-mi) to this semi-remote reservoir.

Figure 4.



Hobart Reservoir was stocked twice in 2018, receiving 1,880 catchable tiger and rainbow trout (Table 1). Table 2 shows the number of stocked fish in Hobart Reservoir has been limited over the past three years with zero fish being stocked in 2017 due to poor road conditions.

Table 1. Hobart Reservoir Stocking, 2018

Date	Species	Strain	Size (in.)	Number
6/25/2018	Rainbow	Trout Lodge	8.4	1060
6/15/2018	Tiger Trout	Tiger	11.9	820
Average			Total	1880

Table 2. Hobart Reservoir Stocking History, 2008 – 2016.

Hobart Stocking History				
Year	Species	Strain	Size (in.)	Number
2008	TT	Tiger	7.9	1010
Total				1010
2009	RB	Tasmanian	10.1	999
2009	TT	Tiger	7.1	527
Total				1526
2010	TT	Tiger	11.39	1099
2010	RB	Eagle Lake	10.2	999
2010	TT	Tiger	11.4	423
Total				2521
2012	TT	Tiger	11.3	1050
2012	RB	Eagle Lake	10.2	598
2012	RB	Eagle Lake	10.3	499
Total				2147
2013	RB	Triploid	9.9	722
2013	TT	Tiger	4.2	1028
2013	RB	Tahoe	9.4	1001
2013	TT	Tiger	7.1	1006
Total				3757
2014	RB	Eagle Lake	9.7	1112
2014	RB	Eagle Lake	9.2	2616
2014	RB	Eagle Lake	9.5	1786
2014	TT	Tiger	10.3	961
Total				6475
6/5/2015	Tiger	Tiger	10	1313
6/12/2015	Tiger	Tiger	10.4	500
Total				1813
6/15/2016	Rainbow	Tahoe	8.9	1050
6/15/2016	Tiger	Tiger	10	750
Total				1800
Total				21049

MANAGEMENT REVIEW

Angler success rates documented from Mail-in Angler Questionnaire and voluntary angler drop-box surveys far exceed the guidelines prescribed in a Coldwater General Fishery Management Concept. Normally, this fishery is popular with anglers for producing high catch rates and the opportunity to fish in a semi-remote setting with relatively easy access. Access issues that were experienced during the 2017-fishing season were remedied in 2018 and access remained open throughout the fishing season.

The lower total number of fish stocked into Hobart beginning in 2015 seems to have benefited the wild population of brook trout that inhabit the reservoir. According to

angler drop-box data, total angler catch of brook trout ($n=1,101$) was the highest recorded in the last seven years, with the closest year being in 2015 at 791 brook trout. With more brook trout caught in the smallest size class, angler satisfaction may decline, making prudent to increase the number of predatory tiger trout stocked to biologically control brook trout. Gillnet surveys in 2019 may help to assess the size structure of fishes in Hobart Reservoir.

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 population survey utilizing gillnets for two net-nights in the fall.

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Date: December 19, 2018