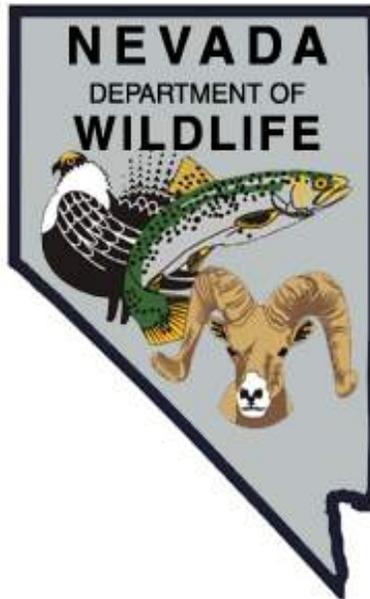


NEVADA DEPARTMENT OF WILDLIFE
STATEWIDE FISHERIES MANAGEMENT



FEDERAL AID JOB PROGRESS REPORTS

F-20-52
2016

CATNIP RESERVOIR
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: *Catnip Reservoir*
Period Covered: *January 1, 2016 through December 31, 2016*

SUMMARY

Catnip Reservoir provided angling opportunity during the open fishing season from June 11 to November 15, 2016. The voluntary, Angler Drop-Box Survey showed anglers reported catching fish in 2016, and the Mail-in Angler Questionnaire Survey information for 2015 was received. Catnip Reservoir water level varied slightly throughout the year and dropped in summer and fall as a result of below average winter snowpack.

BACKGROUND

Catnip Reservoir is located in northern Washoe County on the Sheldon National Wildlife Refuge, approximately 46 miles west of Denio Junction. It is situated at an elevation of 5,791 feet and the surrounding land is characterized by sagebrush-steppe interspersed with rim rock and mountain mahogany. The reservoir covers 22 surface acres and originally stored 220 acre-feet of water. The capacity of Catnip Reservoir has declined over time due to sediment input from Catnip Creek. Catnip Reservoir was constructed in 1910 primarily to store irrigation water for the IXL Ranch.

Lahontan cutthroat trout (LCT) was initially stocked in 1947 from Heenan Lake, CA (Independence strain LCT). Initially, the fishery was utilized as a broodstock and for a while, the spawning operation was productive. The first egg take took place in 1959 and continued annually until 2002. Pyramid Lake strain, Walker Lake strain, and Independence Lake strain cutthroat trout were emphasized in the later years of the operation.

Over the years, there was a diminished need for cutthroat trout, so the broodstock was used to produce hybrid trout. Cutthroat trout from Catnip Reservoir were crossed with rainbow trout from Big Springs Reservoir to produce cuttbow trout. Eggs taken were transferred to the state hatchery where they were reared to a catchable-size and stocked in recreational fisheries around northern Nevada. Since 2001, springs feeding Big Springs Reservoir began flowing intermittently and now the reservoir rarely holds enough water for fish. Spawning operations have not occurred since 2002.

A number of LCT strains (including Walker, Pyramid, Independence, and Marlette) have been stocked in Catnip Reservoir due to changing egg sources and stocking programs. There has been no discern for genetic continuity during artificial spawning operations and subsequent stocking, therefore, it is likely a mixed strain of

LCT exists since spawning occurs naturally in Catnip Creek. In 2008, Pilot Peak strain LCT (cultured by FWS) became available for sport fisheries management and recovery purposes. The amount of wild trout production from Catnip Creek is unknown.

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.
- Coordinate fisheries management activities with the USFWS Sheldon NWR during the annual coordination meeting.

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. Angler use, success, and harvest were assessed using angler drop-box surveys, on-site survey, and mail-in angler questionnaire data. No angler contacts were made during four visits to the reservoir in June and August 2016. A drop-box located near the Angler Information Center collected basic creel information and assessed angler satisfaction. Angler questionnaire data was derived from a 2015 survey mailed to 30,000 anglers purchasing a Nevada fishing license.

Maintain the angler information center and angler drop-box when on site. During each visit, the angler drop-box was assessed for maintenance needs. The Angler Information Center (AIC) was updated in May with current data. Minimal maintenance was required to support the AIC.

Coordinate fisheries management activities with U.S. Fish and Wildlife Service. A meeting was attended in February with USFWS staff to coordinate fisheries management activities for Catnip Reservoir and Creek. Special Use Permits were needed to complete management activities.

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. Catnip Reservoir was stocked with 1,493 Pyramid Lake strain LCT in 2016. The five-year stocking history is provided in Table 1.

Table 1. Catnip Reservoir Five-Year Stocking History - 2012-2016

Year	Species	Strain	Number of Fish	Pounds of Fish	Average Size (inches)	Annual Total	
						Number	Pounds
2012	-----*	-----	-----	-----	-----	-----	-----
2013	LCT	Marlette	3,263	450	7.0	3,263	450
2014	-----	-----	-----	-----	-----	-----	-----
2015	LCT	Pyramid	2,509	325	7.4	2,509	325
2016	LCT	Pyramid	1,493	295	7.9	1,493	295

*-----No fish were stocked

Opportunistic angler surveys were attempted on June 11 and 12 and again on August 9 and 10, 2016 and no anglers were encountered. The drop-box survey documented 14 anglers, catching 190 LCT during June, August, and September. Only one fish was harvested. Table 2 summarizes monthly angler data and Figure 1 portrays LCT length frequency. The survey asked participants to rate their fishing day on a scale of -2.0 (highly dissatisfied) to +2.0 (highly satisfied). Scores averaged +1.62 for “overall experience,” +1.85 for “size of trout,” and +1.23 for “number of trout caught.”

Table 2. Catnip Reservoir Monthly Angler Use and Success Data – Drop-Box

Month	# of Anglers	# of Angler Hours	Angler Satisfaction			# Caught	# of Fish Harvested	Fish/Angler	Fish/Hour
			Angling Experience	Size of fish	# of Fish				
June	6	55	1	1.83	0.83	51	1	8.5	0.93
August	1	4	2	2	1	6	0	6.0	1.50
September	7	28.5	1.86	1.71	1.86	133	0	19.0	4.67
Summary	14	87.5	1.62	1.85	1.23	190	1	8.38	1.78

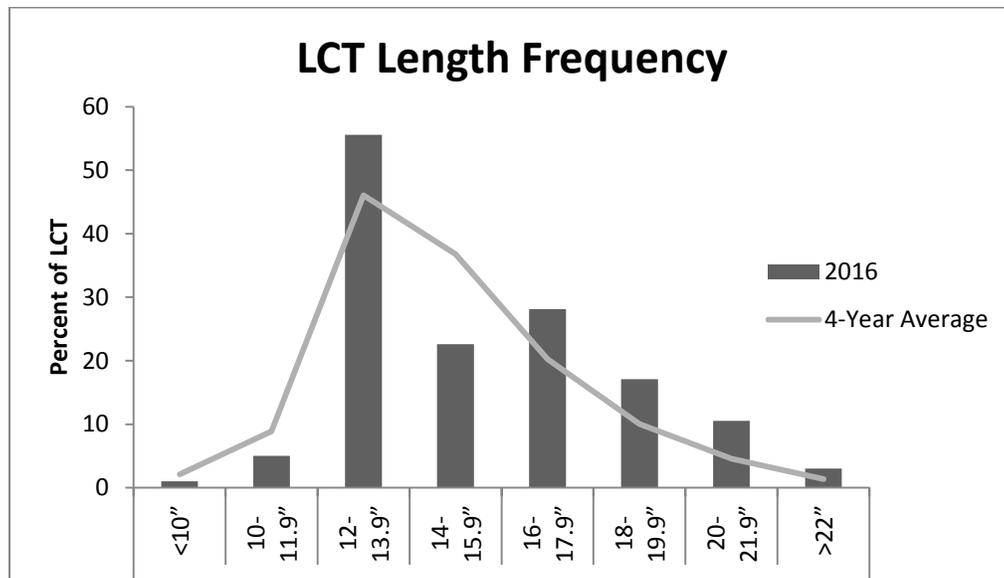


Figure 1. Catnip Reservoir LCT Length Frequency – Drop-Box 2016

The mail in, angler questionnaire for 2015 estimated 161 anglers fished for 538 days and caught 2,777 fish for a success rate of 5.16 fish per day. Table 3 summarizes angler questionnaire data from 2011-2015.

Table 3. Catnip Reservoir Five-Year Angler Questionnaire Data 2011–15

Year	Anglers	Days	Fish	Fish/Day	Fish/Angler	Days/Angler
2011	45	48	336	7.00	7.47	1.07
2012	49	100	668	6.68	13.63	2.04
2013	45	150	874	5.83	19.30	3.31
2014	11	28	368	13.30	32.06	2.41
2015	161	538	2,777	5.16	17.22	3.34
Average	62.2	172.8	1,004.6	7.59	17.94	2.43

Coordinate fisheries management activities with the USFWS Sheldon NWR during the annual coordination meeting. A meeting was attended in February with USFWS staff to coordinate fisheries management activities for Catnip Reservoir and creek. Special Use Permits were obtained to complete management activities.

MANAGEMENT REVIEW

Both drop-box and mail in survey results clearly indicate the fishery is exceeding the guidelines set forth by a Quality Fishery Management Concept which suggests “success rates should be between 0.30 and 1.25 fish per hour and 2.0 to 3.5 fish per angler day with the opportunity to catch fish larger than average size for the species.” Anglers reported catching 1.78 fish per hour and 8.38 fish per angler. Fishing remained good throughout the season for anglers willing to make the trip to this remote 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.
- Coordinate fisheries management activities with the USFWS.

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Date: January 4, 2017