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State of California
Department of Fish and Wildlife

M e m o r a n d u m

Date: July 17, 2014

To: Kevin Thomas
Senior Environmental Scientist Supervisor
Department of Fish and Wildlife

From: Ben Ewing
District Fisheries Biologist
Alpine, Amador, Calaveras, and Lake Counties
Ca. Fish and Wildlife

Cc: Fish Files

Re: 2014 Putah Creek Backpack Electrofishing Survey and Demonstration for Lake County Elementary Schools

On May 20, 2014, two California Department of Fish and Wildlife (Department) fisheries biologists conducted a backpack electrofishing demonstration on Putah Creek (Lake County). The purpose of the demonstration was to inform elementary students as to how the Department uses electrofishing to gather information on fisheries. Multiple electrofishing passes were made on a 75 foot stretch of water at 38° 45' 33.37 N 122 36' 42.67 W situated at 1,083 feet above mean sea level (Figure 1). These passes were in the same location as the 2013 survey.

The shoreline is a mix of grass, rocks, and oak woodland. The creek bottom appears mostly rock. The estimated depth of the creek where the survey was conducted was six inches to one foot. The creek receives water from rain and snowmelt runoff from the Mayacamas Mountain range where it then flows into Lake Berryessa. Rainbow trout (*Oncorhynchus mykiss*), Sacramento sucker (*Catostomus occidentalis*), riffle sculpin (*Cottus gulosus*), smallmouth bass (*Micropterus dolomieu*), California roach (*Lavinia symmetricus*), green sunfish (*Lepomis cyanellus*), and Sacramento pikeminnow (*Ptychocheilus grandis*) have been documented in the upper part of Putah Creek before it reaches Lake Berryessa (DFG Files).

Table 1 presents the species, number, mean length and weight, and length ranges for species collected from the 2013 and 2014 surveys.

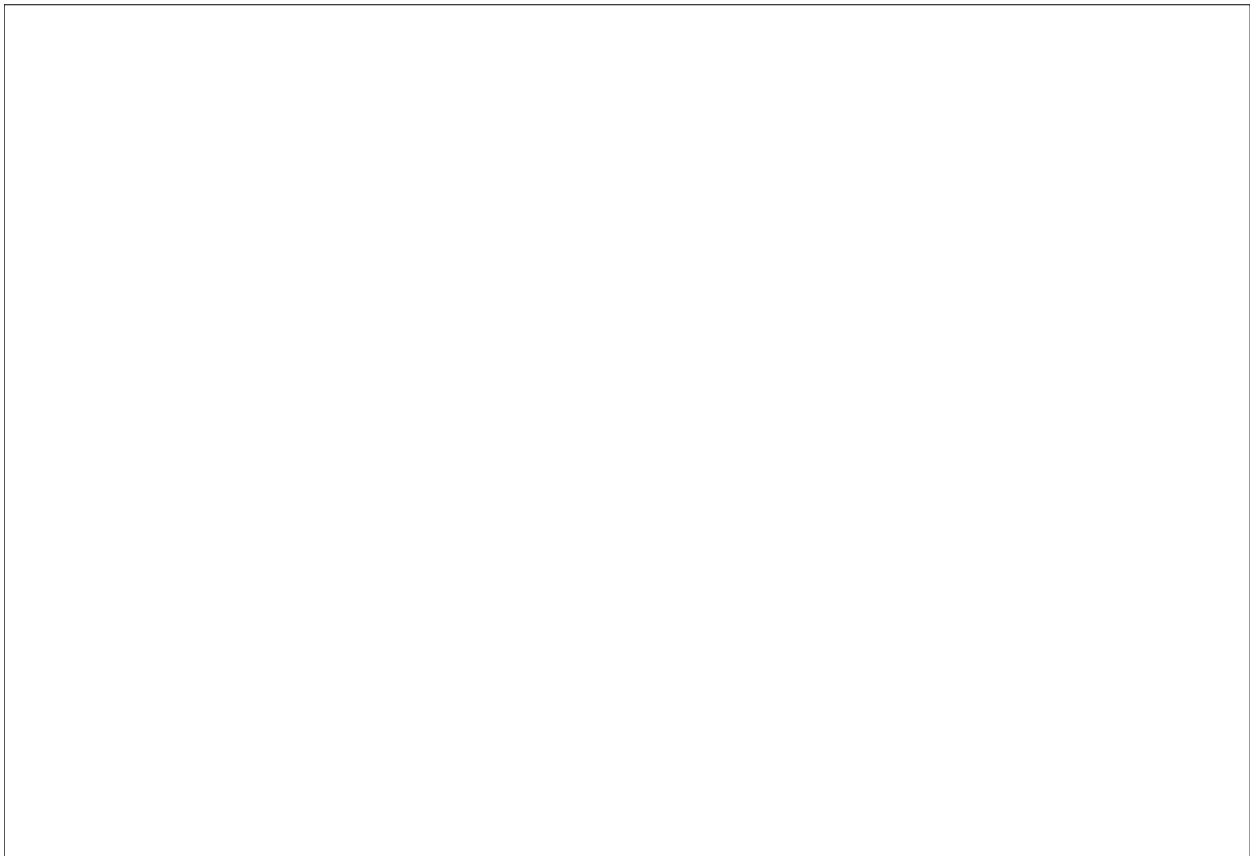


Figure 1. Putah Creek Electrofishing Transect (Lake County, CA).

Table 1. Species composition comparison from Putah Creek E-fishing surveys on May 3, 2013 and May 20, 2014.

Mean total length (TL) was measured in millimeters (mm). Average weight was in grams (g)

Species	Number		(TL)		Weight		Length Ranges	
	2014	2013	2014	2013	2014	2013	2014	2013
Rainbow trout	22	5	68.7	70.4	3.8	4.7	50 - 84	50 - 95
Riffle sculpin	3	NA	54.3	NA	6.7	NA	40 - 83	NA
American bullfrog	NA	3	NA	86.7	NA	12.4	NA	35 - 115
Green sunfish	NA	1	NA	57.0	NA	5.9	NA	NA
Unidentified Sculpin spp.	NA	4	NA	68.5	NA	4.7	NA	60 - 75
Sacramento sucker	3	NA	35.3	NA	NA	NA	30 - 40	NA
Total	28	13						
	2014	2013						
Water Temperature	64° F	66° F						

The 2014 survey yielded fifteen more fish than the 2013 survey including including an increase in rainbow trout (RT) and the addition of riffle sculpin (Figure 2) and Sacramento sucker which was not collected in last year's survey. Rainbow trout were again the most numerous fish for a second straight year, making up 79% of the total catch in 2014. Total lengths, weights, and length ranges were similar for RT collected in 2013 and 2014.



Figure 2. Riffle sculpin collected from Putah Creek (Ewing, 5/20/14)

The Department collected numerous tadpoles but did not count and/or identify them to species in the 2014 survey. One Pacific tree frog (*Pseudacris regilla*) was collected in 2014 but escaped before the Department could get a length and/or weight on it. Due to the low number of fish collected for each species except for rainbow trout, no summaries were made from the information collected.

