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October 8, 2018

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Caples Lake Amphibian Survey

On June 26 and 27 and September 7, 2018, California Department of Fish and Wildlife (Department) completed an amphibian survey at Caples Lake. The purpose of the survey was to determine if any special status amphibian taxa were present, and to use these data to determine if stocking Caples Lake would result in impacts to special status species, specifically Sierra Nevada yellow-legged frog (*Rana sierra*, SNYLF).

Caples Lake is a 620 acre lake in Alpine County located at 38.700771 N 120.044371 W, situated at 7,825 feet above mean sea level. The shoreline is a mix of bedrock, sand, and conifer forest. The lake bottom appears mostly mud and various sized rock substrate. When Caples Lake spills, water drains into the Silver Fork American River. The lake receives water from rain and snowmelt runoff from the immediate area and multiple small tributaries, including Emigrant and Woods Creeks. The lake historically has received stockings of brook trout (*Salvelinus fontinalis*), rainbow trout (*Oncorhynchus mykiss*), Lahontan cutthroat trout (*Oncorhynchus clarki henshawi*), brown trout (*Salmo trutta*), and lake trout (*Salvelinus namaycush*), with the last recorded stocking of rainbow trout in 2018.

Two Department scientific aides and one fisheries biologist conducted a visual encounter survey (VES) at Caples Lake. The surveyors slowly circumambulated the lake looking for diurnal amphibians and reptiles (Fellers and Freel 1995). The VES on June 26 began at 15:53 and ended at 16:27 with a total survey duration of 28 minutes. The VES on June 27 began at 09:00 and ended at 13:13. The stopwatch broke on June 27 so actual survey time was undetermined. The VES on September 7 began at 11:15 and ended at 15:56 with a total survey duration of 179 minutes. The air temperature was 55°F (13.0°C) at 10:01 under clear skies on June 27 and 62.8°F (17.1°C) at 11:15 under clear skies on September 7. Water conditions were relatively clear, with visibility to about 10 feet all three days' of surveys. There was little to no

breeze on the water, producing relatively flat water conditions and unimpeded views into the water on June 26 and 27 and September 7. Water temperature was 47.5°F (8.6°C) at 10:00 on June 27 and 62.2°F (16.8°C) at 11:15 on September 7. Due to the large size of Caples Lake, surveyors focused on the southern and eastern shoreline in order to maximize the likelihood of observing SNYLF, with the transect surveyed in red in the attached map (Figure 1). This portion of Caples Lake's shoreline is the closest to known populations of SNYLF. The northern shoreline is either adjacent to a major highway, next to a campground, or not safe to survey due to steep bedrock or rip-rap. One mountain garter snake (*Thamnophis elegans elegans*) was observed (Figure 2).

Due to the absence of special status amphibian species, Caples Lake is suitable to stock. The Department will stock catchable-size rainbow and brown trout to create a put and take fishery for recreational anglers along the heavily-used Highway 88 corridor.

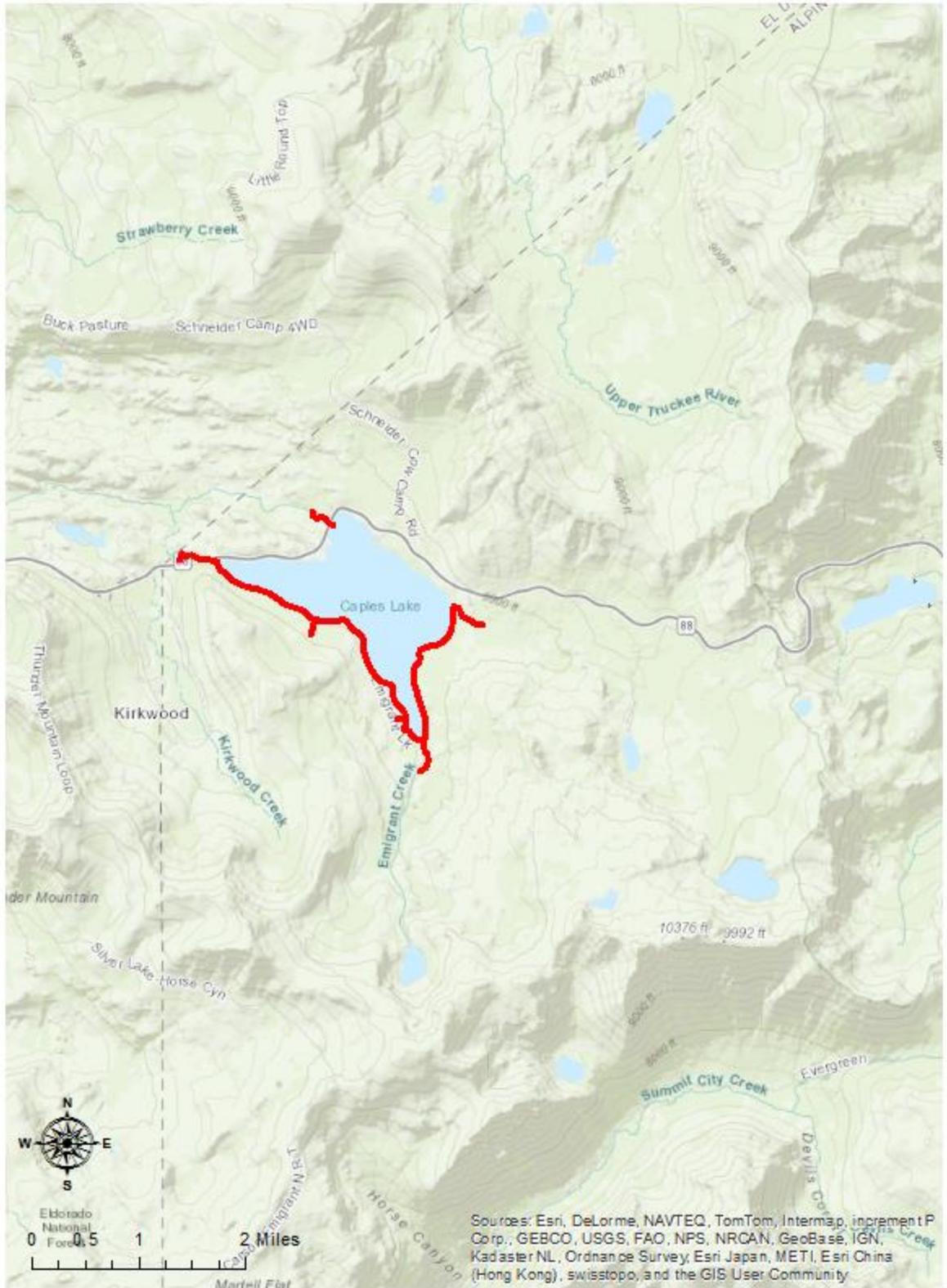


Figure 1. Caples Lake Visual Encounter Survey Transect (6/26/18, 6/27/18, and 9/7/18).



Figure 2. Mountain garter snake observed at Caples Lake on September 7, 2018.
Photo by S. Harris

Literature Cited:

1. Fellers, G. M. and K. L. Freel. 1995. A standardized protocol for surveying aquatic amphibians. National Biological Service Cooperative Park Studies Unit, University of California Division of Environmental Studies, Davis, CA. Technical Report No. NPS/WRUC/NRTR95-01 (UC CPSU TR # 58).

