



State of California
Department of Fish and Wildlife

M e m o r a n d u m

Date: November 23, 2015

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

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

Cc: Fish Files

Re: Lower Blue Lake (Lake County) Electrofishing Survey

On November 12, 2015, California Department of Fish and Wildlife (Department) personnel, along with staff from the Robinson Rancheria and a local volunteer, conducted a boat-based electrofishing survey in Lower Blue Lake (Lake County). The purpose of the survey was to determine if there were any Clear Lake hitch (*Lavinia exilicauda chi*) (CLH) inhabiting the lake. Currently, CLH is a threatened species under the California Endangered Species Act (CESA).

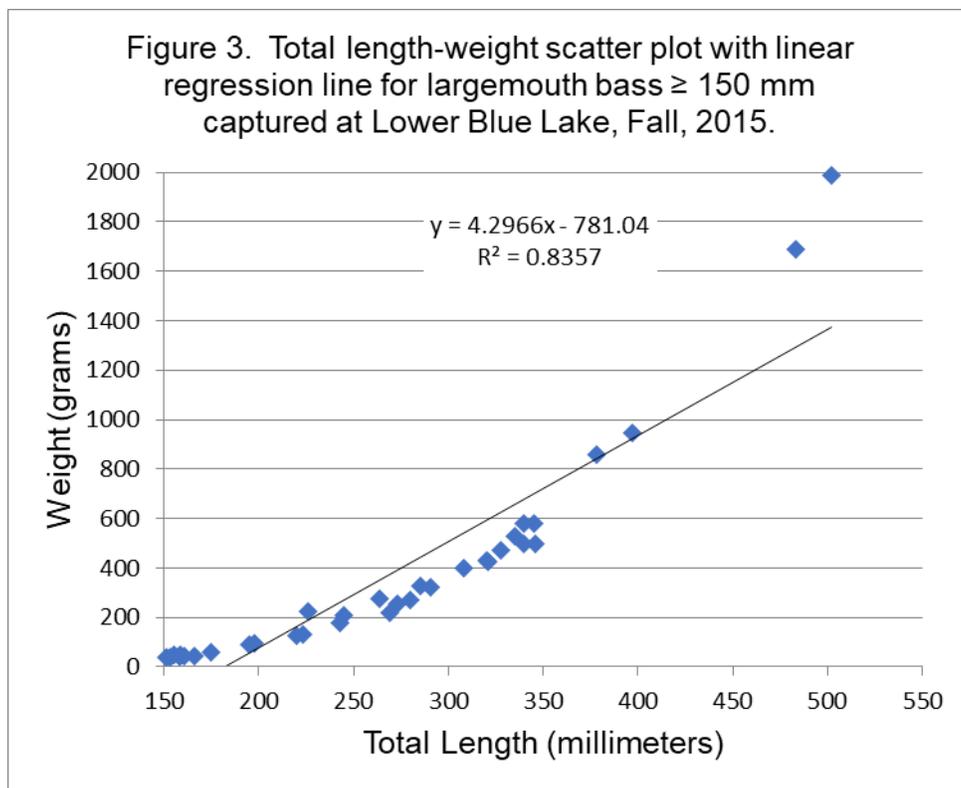
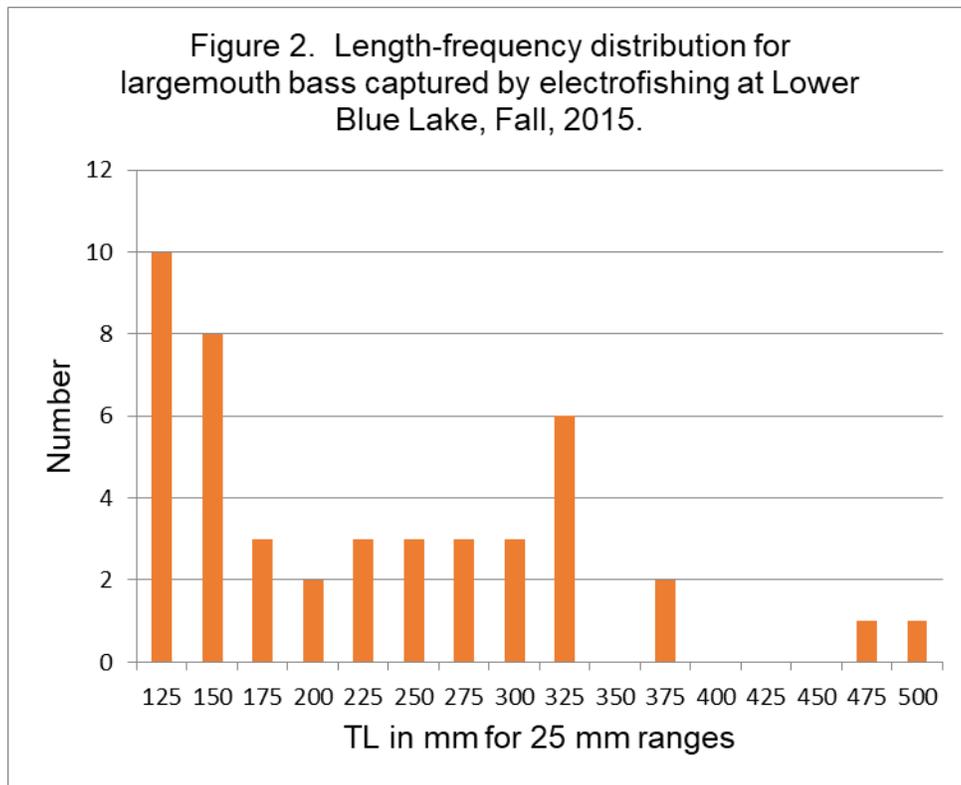
The entire perimeter of the lake was sampled for a total of 4785 electrofishing seconds (79.75 minutes) (Figure 1). A total of six different species were collected including largemouth bass (*Micropterus salmoides*) (LMB), bluegill (*Lepomis macrochirus*) (BG), black crappie (*Pomoxis nigromaculatus*) (BCR), white crappie (*Pomoxis annularis*) (WCR), Sacramento sucker (*Catostomus occidentalis*) (SKR-S), and green sunfish (*Lepomis cyanellus*) (GSF). Largemouth bass made up the greatest number collected with 45, followed by BG with three, WCR and SKR-S with two each, and BCR and GSF with one each.



Figure 1. Lower Blue Lake (Lake County, CA)

Average total length for LMB was 240.2 mm (9.5 in.) and average weight for LMB 150 mm (5.9 in.) and greater was 371.9 g (0.8 lbs.). The mean relative weight for LMB based on the intercept and slope parameters determined by Wege and Anderson (1978) was 93. This indicates the LMB population was in good condition. The length class with the greatest number collected was the 125 mm (4.9 in.) class (Figure 2).

Using the linear regression equation present in Figure 3, a reliable estimated weight can be determined from the length of a LMB 150 mm (5.9 in.) and greater in total length.



Average total length for BG was 164.3 mm (6.5 in.) and average weight for BG 80 mm (3.1 in.) and greater was 85.3 g (0.19 lbs.).

Average total length for WCR was 193 mm (7.6 in.) and average weight for WCR 100 mm (3.9 in.) and greater was 74.5 g (0.16 lbs.).

Average total length for SKR-S was 375.5 mm (14.8 in.) and average weight for SKR-S 100 mm (3.9 in.) and greater was 575.5 g (1.3 lbs.).

The total length for the one BCR was 205 mm (8.1 in.) and weight was 109 g (0.24 lbs.).

The total length for the one GSF was 171 mm (6.7 in.) and weight was 88 g (0.20 lbs.).

References

Wege, G. J., and R. O. Anderson. 1978. Relative weight (Wr): a new index of condition for largemouth bass. Pages 79-91 in G. D. Novinger and J. G. Dillard, editors. New approaches to the management of small impoundments. American Fisheries Society, North Central Division, Special Publication 5, Bethesda, Maryland.