



## Shadow Cliffs Fisheries Report 2013

EBRPD Fisheries Department

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### Introduction

The purpose of this report is to give the public an overall view of the condition of the fisheries in the District's managed lakes. The surveys conducted for this report serve the purpose of identifying general trends in fish communities which aid in making management decisions. By analyzing these trends over time, our goal is to make decisions that ultimately improve recreational fisheries and the overall health of our lake ecosystems. We hope this information will help you understand the fisheries dynamics in our beautiful lakes.

### Methods

#### *Fish communities*

Fish community surveys are conducted annually at the same sites from June-July. Surveys are conducted at night using an electro-fishing boat. This method utilizes an electrical current sent from the boat through the water which temporarily stuns the fish for easy collection. Upon collection, fish are identified, measured for length and weight, and released back into the lake. Four sites were chosen at Shadow Cliffs along the nearshore zones. Results for this report include year 2008-2013.

### Results

#### *Fish communities*

There has been a gradual increase in total catch rate over the past 3 years (Figs. 1 and 2). Largemouth bass dominated most of the catch for all years. The largemouth bass population consists of very high numbers of juvenile and young adult fish, but few larger adults (Fig. 3). Because Shadow Cliffs is a steep sided reservoir, there is a relatively narrow littoral zone, (submerged aquatic weeds), along the shoreline of the lake. The littoral zone of a lake provides important rearing habitat for young bass and bluegill. Figure 3 shows strong numbers of small largemouth bass all years, especially the past two years. Our surveys typically do not sample the

### Shadow Cliffs Catch Per Unit Effort

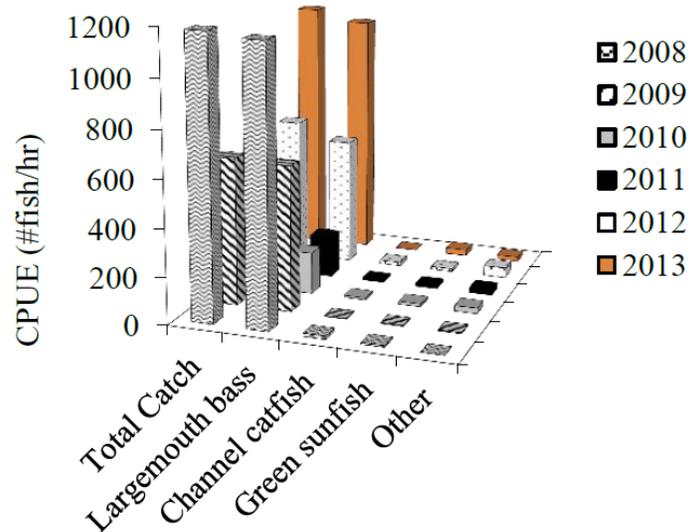


Figure 1: Catch results from fish community surveys from 2008-2013. CPUE is total number of fish caught per hour.

## Shadow Cliffs Fish Community

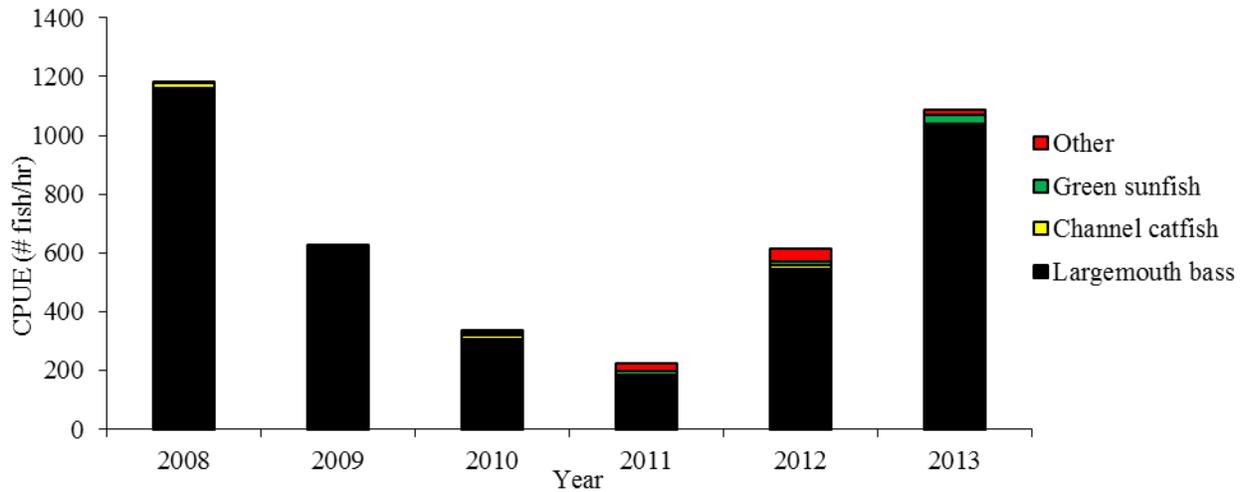


Figure 2: Total number of fish species caught per hour during fish community surveys from years 2008-2013.

larger fish that are deeper and further from shore where electrofishing is not effective. Therefore the survey data primarily reflects the smaller bass found in the nearshore habitat that is accessible to electrofishing.

### *Put –n- take fisheries*

Besides the naturally reproducing fish species discussed here, Shadow Cliffs supports a popular put –n – take fishery for rainbow trout and channel catfish. Funded by the District’s Fishing Access permit program, Shadow Cliffs generated over \$82,000 in revenues and over \$91,000 was expended on fish plants in 2013. Shadow Cliffs received 21,345 pounds of rainbow trout from EBRPD and an additional 17,450 pounds of trout from the California Department of Fish and Wildlife in 2013. The District also planted 4,500 pounds of channel catfish during the summer months. Some of the largest fishes caught and reported by anglers in 2013 include: two channel catfish over 16 lbs. in addition to one 26 lb. catfish, one 15 lb. and one 16 lb. 14 oz. largemouth bass, and a 17 lb. rainbow trout! Shadow Cliffs maintains relatively clear water conditions during and after winter storm events. For this reason, the rainbow trout catches are often very good when other local reservoirs are turbid and unfishable.

## Shadow Cliffs Largemouth Bass

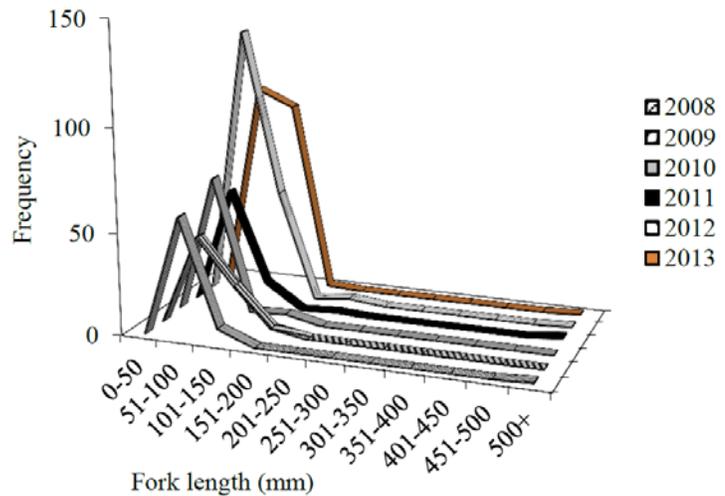


Figure 3: Size class distribution of largemouth bass during years 2008-2013. Frequency is the total number of fish in a given size class.

## **Conclusions**

Shadow Cliffs remains an important east bay fishery not only for the planted rainbow trout and channel catfish but it also supports a very popular trophy largemouth bass element. The largemouth bass are apparently spawning each of the years sampled but it is virtually impossible to track the growth of these fish or estimate the numbers of adult largemouth bass due to the configuration of the lake. We know, however, that the adult bass are in the reservoir as evidenced by the large bass caught and often released by anglers as well as the number of largemouth bass spawning nests that are observed each spring along the shelf of the lake adjacent to the east shoreline. It is important that we continue to monitor these fish communities because the more we can learn about them, the better we can make decisions to manage this important fisheries resource.