

Here is a bit of data the fisheries biologists collected.

Recent survey findings on Both Fish and Royer Lake indicate that the submersed plant communities are in decline. Comparing data from 2014 and 2019 surveys, the overall littoral coverage, max plant depth and total number of species detected have declined on both lakes. In Royer in 2014 the total littoral coverage was 50% with seven different species detected and a max plant depth of 10.5 feet. In 2019 coverage dropped to only 2.5% with only one species detected at a depth of 3.0 feet.

Fish Lake does not have any historical data for comparison, but Tier II plant data taken from 2019 and anecdotal evidence from residents on Fish indicate that the plant community is low and has decreased over the past few years. Of the 50 littoral sites sampled on Fish Lake only 6 turned up plants. Littoral coverage was only 12% and maximum depth of plants detected was only 4 foot. Comparing this number to the regional average for Eutrophic lakes, it falls below average. Most Eutrophic lakes are between 41% and 83% coverage.

The most likely cause of the decline in the plant communities is the declining water quality due to the presence of Gizzard Shad. Secchi depth readings were extremely poor in 2019 with each lake having a reading of 2-2.5 feet. This limits sunlight penetration to deeper substrates which ultimately reduces the depth at which plants can grow. With the steep contours of the lakes the littoral area is already low, and adding this additional factor drastically reduces the littoral zone even more.