

2020 Bass Regulation Review for Mule Lake (DOW 11-0200), Cass County

Background: A catch-and-release (C&R) regulation was implemented on largemouth and smallmouth bass in 2004 with majority public support. The regulation was reviewed in 2009 and modified to a 12-inch maximum, which was reviewed in 2015 and modified to a 14-20 inch protected slot limit (1 over 20 inches allowed in possession). The regulation is being reviewed as part of the commitment made in 2004 when experimental regulations were first implemented.

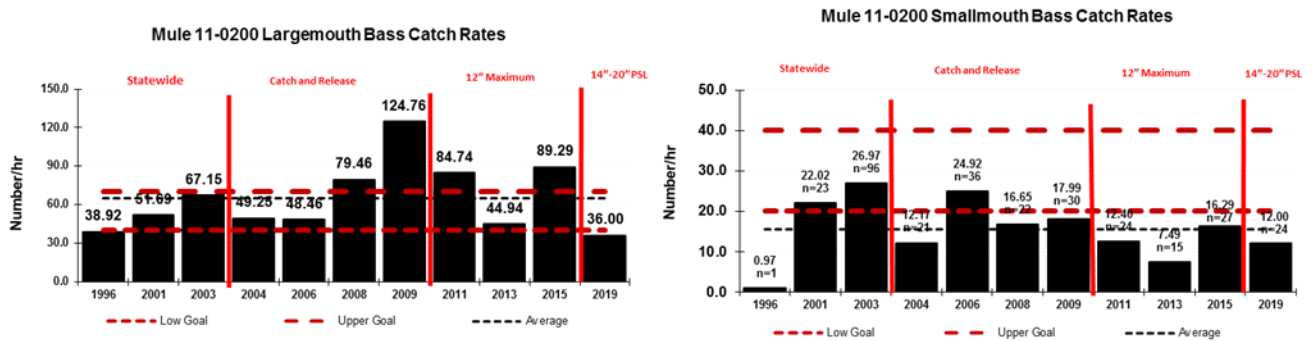


Figure 1. Spring electrofishing catch rates by regulation type of largemouth (left) and smallmouth (right) bass in Mule Lake, 1995-2019.

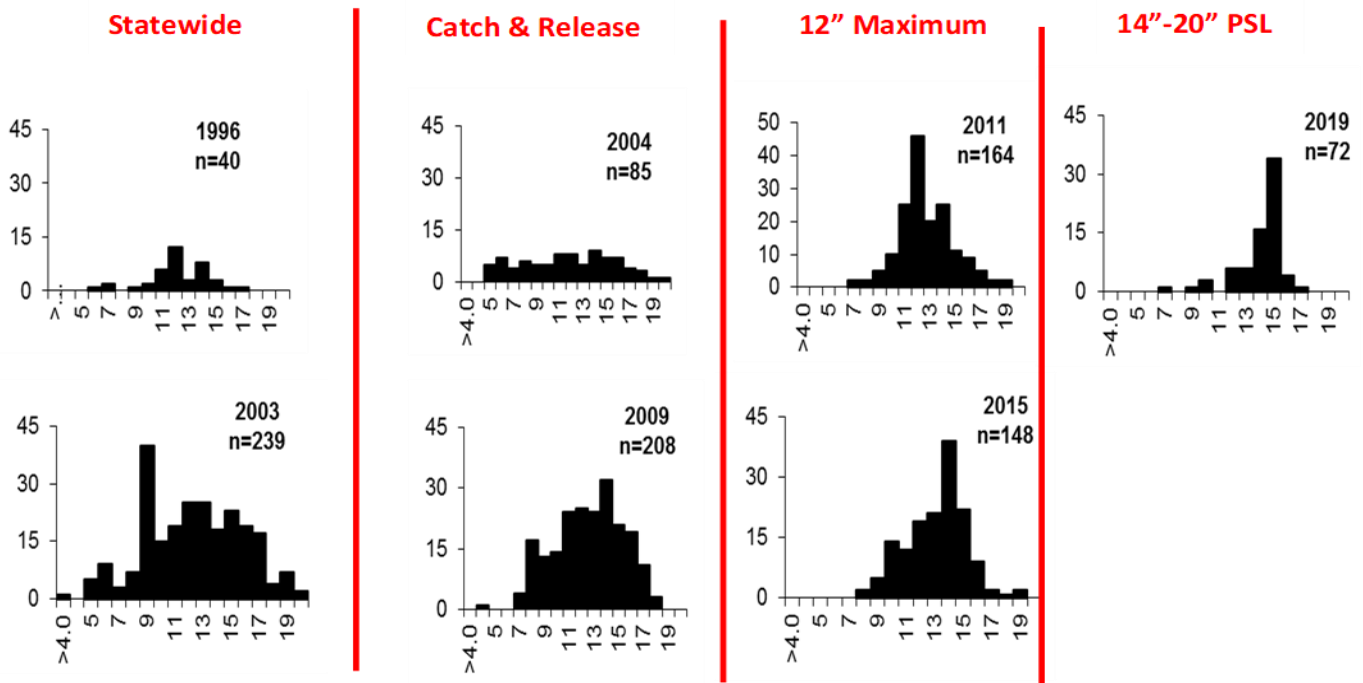


Figure 2. Selected length distributions for largemouth bass sampled during various bass regulations on Mule Lake. Sampling for 2020 was cancelled due to the COVID-19 pandemic. Bass size structure has improved considerably since special regulations were first implemented in 2004 and improvements have continued to be maintained through 2019 under the 14-20 inch protected slot limit. *Note: Not enough Smallmouth Bass are sampled within each sampling event to effectively compare length distributions.*

Figure 3. Creel survey results from 2011 showed 13% targeted walleye, 14% target northern pike and 46% of anglers targeted largemouth and smallmouth bass.

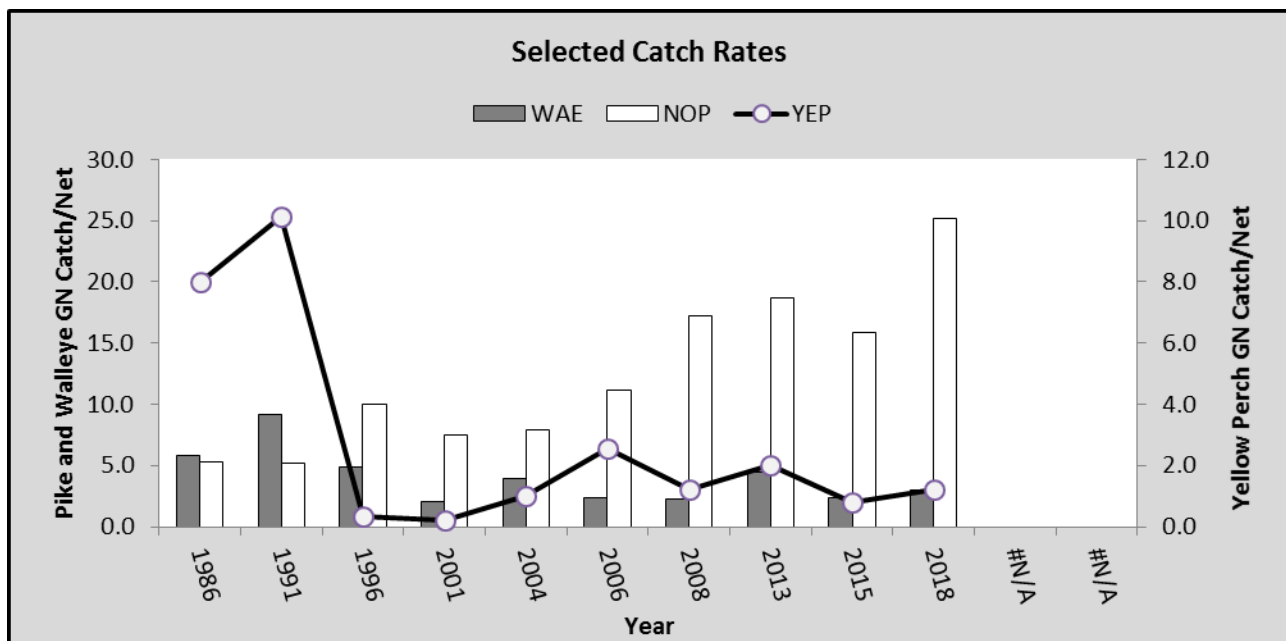
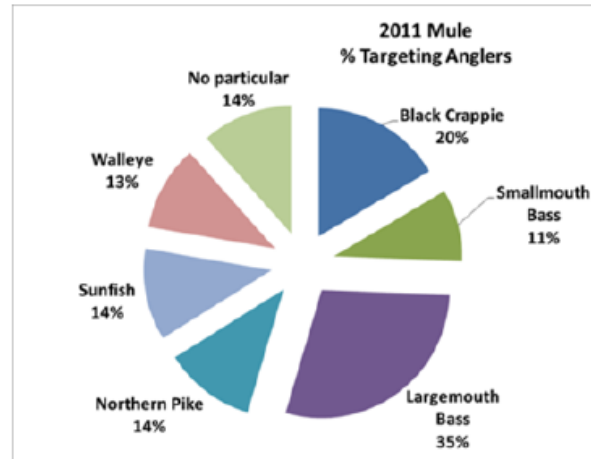


Figure 4. Gill net catch rates of walleye (shaded bars), northern pike (open bars) and yellow perch (dot and line) in Mule Lake, 1986-2018. The walleye gill net catch rate has remained near the goal of 3.0 fish per net since 1996 despite considerable stocking of various life stages. Yellow perch catch rates have been at or near record lows since 1996 and northern pike abundance has increased to the historical high in 2018 and continues to be dominated by small fish. Special regulations for bass were first implemented in 2004 and have had no evident effect on walleye or yellow perch in Mule Lake as declines in both occurred with expanding pike densities before bass regulations went into effect.

Recommendation: Continue with the 14-20" protected slot limit (1 over 20" allowed in possession) for Largemouth and Smallmouth Bass, as these regulations have successfully improved and maintained size quality.

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