



Big Eau Pleine Reservoir 2018 walleye stocking assessment

MCGL Project No. 2202

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Project Goal

Determine whether young-of-year walleye sampled in 2018 and age-3 walleye sampled in 2021 originated from the 2018 stocking event.

Results summary

Eleven (23.9%) of the 46 screened 2018 young-of-year walleye originated from the 2018 stocking event.

None of the 67 screened 2021 age-3 walleye originated from the 2018 stocking event.

Methods and Results

Sixty-seven 2021 age-3 walleye, 46 2018 young-of-year walleye, and 52 broodstock walleye from Big Eau Pleine Reservoir were genotyped using the walleye genotyping-in-thousands (GT-seq) panel developed by Bootsma et al. (2020). Missingness of individuals and loci was evaluated with removals occurring when more than 10% of the data were missing. This resulting in the removal of zero individuals and 135 loci, leaving 670 loci for evaluation. Parentage analysis was performed using a maximum likelihood approach implemented in the computer program COLONY (Jones & Wang, 2010). Zero of the 67 evaluated age-3 walleye captured in 2021 had parents among the broodstock samples. In all cases unsampled parents were assigned to offspring with >99.999% certainty. Eleven (23.9%) of the 46 screened young-of-year walleye captured in 2018 had both parents assigned to broodstock fish with >99.999% certainty. The remaining 35 2018 young-of-year walleye had unsampled parents assigned with >99.999% certainty.

For additional information, contact Dr. Jared Homola, Director of the Molecular Conservation Genetics Lab at UW-Stevens Point at jhomola@uwsp.edu or 715-346-3150.