National American Fisheries Society Meeting

[August 29 – September 3, 2020; Columbus, OH]

Abstract Submission

Symposium: Fish Under the Radar: Native, Non-game, and Taken for Granted [ID # [9468](https://afs.confex.com/afs/2020/webprogrampreliminary/Session9468.html)]

**Title:**

Population Characteristics of Commercially Harvested Bigmouth Buffalo in NW Iowa Lakes

**Authors:**

Martin Simonson1, Michael Weber1

**Affiliations:**

1: Department of Natural Resource Ecology and Management, Iowa State University

**Abstract:**

Bigmouth Buffalo (*Ictiobus cyprinellus*) are native to the Missouri and Mississippi River drainages from Louisiana, United States to Alberta, Canada, and are commercially harvested across the Midwest and sold for human consumption in large metropolitan areas. However, little is known about how commercial harvest of this species affects population characteristics. Fish may compensate for harvest through multiple pathways including increased natural survival, increased recruitment, or increases to individual growth and condition. We examined how these three potential mechanisms of compensation to harvest changed in response to a range of exploitation rates in six northwest Iowa lakes. Tags returned from commercial harvesters generally showed exploitation rates between 0% and 30% per year. Each of the potential ways fish populations can compensate for harvest were variable among lakes. Changes in relative weight of Bigmouth Buffalo was not significantly related to exploitation, whereas