

Three LSSU alumni, representing different agencies, working collaboratively to restore a struggling population of Lake Sturgeon



Stefan Tucker '12, John Bauman '05, and Jason Lorenz '08 began their fisheries careers while attending LSSU and each graduated with a Bachelor's degree in Fisheries and Wildlife Management. At LSSU each student had the opportunity to work with and research a small remnant population of Lake Sturgeon in the upper St. Mary's River. Currently these three LSSU alumni have found themselves working collaboratively, representing three different agencies, to restore a struggling population of Lake Sturgeon on the Kalamazoo River in south west Michigan.

No other species in the Great Lakes has received as much attention for rehabilitation as the Lake Sturgeon. These prehistoric giants of the Great Lakes can easily exceed 6 feet long and weigh over 100 pounds. Historically Lake Sturgeon were one of the most abundant fish in the Great Lakes but were seen as useless and a nuisance. At the turn of the 20th century these same fish became a prized, targeted species with high economic value and were nearly fished to extinction. The creation of hydroelectric dams halted population growth by blocking fish passage to historic migrations and important spawning grounds of Lake Sturgeon. These dams now restrict struggling populations and force them to attempt to spawn below these structures in areas with poor quality spawning habitat. The current Lake Sturgeon population is said to be at less than 1% of its historical abundance due to extreme overharvest, habitat fragmentation and degradation.

Many aspects of a Lake Sturgeon's life cycle are remarkable and a true testament to their struggle to persist. Lake Sturgeon possess traits that were beneficial in historic times and buffered the extremes of the environment but now these same traits compromise their survival. The life expectancy of a Lake Sturgeon can exceed 80 years; however it is a daunting task to get there. Lake Sturgeon take 15-20 years to become sexually mature and do not spawn regularly on an annual cycle. Therefore modern-day events of natural reproduction are small and highly limited with extreme annual variability. The large size of a female sturgeon allows her to produce hundreds of thousands of eggs yet less than 1% of these eggs will survive after spawning due to poor fertilization, poor spawning habitat and egg predation. The Lake Sturgeon populations that exist today have stood the test of time and endured the negative effects of man and now require our help to survive. Currently Lake sturgeon are listed as a threatened species in Michigan, but with the dedicated efforts from biologists, researchers, and conservation enthusiasts these fish have the opportunity to make a comeback in the Great Lakes.

Historically 36 Lake Sturgeon populations existed across Michigan waters. Currently 24 distinct Lake Sturgeon populations remain, however, of those 24 remaining populations only 5 are considered to be breeding, and the Kalamazoo River is listed as one of them. Together, Stefan Tucker (Michigan Department of Natural Resources), John Bauman (US Fish & Wildlife Service), Jason Lorenz (Gun Lake Tribe) are assisting the Michigan Department of Natural Resources to monitor the adult population in the Kalamazoo River by tagging and collecting biological information (age, size, sex) of adults as they migrate upriver to spawn. Naturally produced Lake Sturgeon eggs and larvae are being collected to be raised in a unique streamside rearing facility to protect them and ensure a stable environment during their most vital and vulnerable life stages. The hatched young-of-year Lake Sturgeon will be raised and studied throughout the summer of 2014 and grown to 6" before being tagged and released back into the Kalamazoo River in the fall to continue their journey and complete one step along the way of Lake Sturgeon rehabilitation.



Stefan Tucker (left) and John Bauman (right) holding an adult Lake Sturgeon on the Kalamazoo River.