

Sauger (*Sander canadensis*)

Status: NSS2; NatureServe G5 S3S4

Abundance: Uncommon

Introduction: The body is elongate with a large eye. The head is moderate with a large mouth having many canine-type teeth. Young sauger feed on aquatic insects and crustaceans, adults are piscivorous. When water temperatures reach the mid-40s, the adults migrate into tributary streams or backwaters to spawn in shallow water with rocky or gravel bottoms. A 3-pound female will produce about 50,000 eggs, which are deposited randomly and left unattended until they hatch. In the Big Horn River drainage, sauger and walleye mix in both reservoirs and rivers and genetic testing shows they have done so without hybridizing.

Habitat: The sauger prefers large rivers but may also be found in reservoirs. The fish is tolerant of turbid waters. In rivers the key component of sauger habitat is velocity. In the summer and spring they select low velocity areas having sand or silt substrates. Pool habitats are preferred by sauger especially in winter where they tend to select low velocity pools greater than 6 feet deep. Native to streams east of the Continental Divide, the sauger occurs in Wyoming today in the Wind-Big Horn River drainage and in the Tongue and Powder river drainages. It has apparently been extirpated from the North Platte River, where it had once been common.

Problems: Sauger migrate extensively. Dams, even very short ones, create barriers preventing sauger from reaching suitable spawning habitats. Sauger and walleye spawn at different times; unintentional stocking of saugeye - a walleye and sauger hybrid - could break down this separation in timing and lead to hybridized populations in the wild. Velocity and flow regimes are critical habitat factors for sauger, which is problematic because much of the current habitat is affected by the operation of large and small reservoirs.

Conservation Actions:

- Continue to maintain HACCP policies and test sources of walleye prior to stocking to ensure no saugeye hybrids are accidentally stocked in reservoirs of the Big Horn River drainage.
- Studies are needed to better understand habitat requirements for juvenile sauger, and begin protection, restoration or enhancement activities to ensure suitable spawning and juvenile habitat is available in the future.
- Studies are needed to understand the habitat requirements of the sauger and in relation to annual discharges from large impoundments.
- A better understanding of the basic biology, life history and ecology is needed.
- Monitoring protocols and sites should be identified and routinely sampled.
- Surveys are needed to provide baseline data and monitor distribution and population trends. These data may be used to identify specific threats and identify management needs and priorities.
- Evaluate the potential for restoring within suitable portions of historic range that are currently uninhabited or where competing or hybridizing species can be removed.

References and Additional Reading:

Amadio, C. J. December, 2003 Factors Affecting the Distribution and Life History of Sauger in the Wind River Watershed Upstream From Boysen Reservoir, Wyoming. Master's Thesis. University of Wyoming. Laramie, Wyoming.

Baxter, G.T., and M.D. Stone. 1995. Fishes of Wyoming. Wyoming Game and Fish Department, Cheyenne. 290pp.

Welker, M.T., E.L. Roberts, L.K. Stahl, and J. Wendel. 2002. Seasonal Habitat Use and Habitat Preference for Sauger in the Big Horn River, Wyoming. Wyoming Game and Fish Department, Cheyenne. 22pp.

Sauger Distribution

