

Sturgeon Chub - *Hybopsis gelida*

Abundance: Extremely rare

Status: NSS2 (Ab)

NatureServe: G3 S1

Population Status: Extirpated from the North Platte River drainage. The species exists in relatively low numbers in the Powder River drainage and is nearly extinct in the Bighorn River drainage.

Limiting Factor: Habitat: Habitat is limited for this species in Wyoming.

Comment: Changed from NSS1(Aa) to NSS2 (Ab) in 2017 due to a resurgence in the Powder River population following high water in 2011. Limiting factor in the Powder appears to be discharge and may not as extreme as previously believed. NSS Ranks are reviewed and revised with each SWAP revision.

Introduction

The historic range of the sturgeon chub extended throughout the Missouri and Lower Mississippi River drainages from Montana to Louisiana (Cross et al. 1986). In Wyoming this species once occupied the Bighorn, North Platte, and Powder River basins (Baxter and Stone 1995). Currently, sturgeon chub are primarily restricted to the Yellowstone and Powder rivers of Montana and Wyoming. Sturgeon chub are well-adapted to unregulated, mainstem turbid river systems. Sensory organs such as taste buds on their fins and barbels, enable sturgeon chub to locate aquatic insects (Stewart 1981). Although the details are unknown, sturgeon chub likely spawn over gravels, and once emerged, the larvae are free-floating (Werdon 1993).

Habitat

Sturgeon chub are obligates of free flowing, turbid, rivers. They are largely mainstem dwellers and are rarely found in tributary streams (Weitzel 2002). Sturgeon chub are usually associated with hard substrates and relatively shallow, high current velocity habitats (Baxter and Simon 1970; Lee et al. 1980; Stewart 1981). However, Lee et al. (1980) and Weitzel (2002) note sturgeon chub occurrences over sandy substrate, and Senecal (2009) sampled them from relatively deep and slow pool and run habitat with predominantly sandy substrates.

Problems

- h Habitat degradation (e.g., dewatering, loss of connectivity) and introduced species pose the most serious threats to this species' persistence.
- h Habitat degradation due to impoundments in major river drainages is likely contributing to declines in distribution and population size.

Conservation Actions

- h Continue efforts to educate landowners and the public about the importance of native fish and their habitats.
- h Continue efforts to prevent the colonization and spread of nonnative fishes throughout the Powder River basin through the maintenance of natural flow processes.

Monitoring/Research

Conduct regular sampling at established Powder River sites to monitor presence/absence of sturgeon chub and associated species, such as goldeye.

Continue to identify and record observations while conducting fisheries management sampling.

Recent Developments

Sampling from 2004-2007 indicated that sturgeon chub are present in the Powder River at extremely low densities. This species comprised less than 1% of the total fish assemblage (Peterson et al. 2009; Senecal 2009). Following the historically high water year in 2011, Game and Fish has found sturgeon chub in most of the established Powder River sites including as far upstream as near Kaycee. It now appears if there is high water, we will see more sturgeon chub in Wyoming.

Completed construction of the Kendrick Diversion dam bypass channel on Clear Creek, a tributary to the Powder River, to allow fish passage for spawning migrations. A project to determine which species are utilizing the bypass channel will be initiated in 2011.

References

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SOURCE: Digital maps of ranges for Wyoming Species of Greatest Conservation Need: February 2016. Wyoming Game and Fish Department. Note that brown indicates the current known range of the species.