Bigmouth Shiner - Notropis dorsalis

Abundance: Common

Status: NSS4 (Cb) NatureServe: G5 S5

Population Status: Stable. Appear to be widespread and abundant with no apparent population declines over last decade.

Limiting Factor: Habitat: severe due to extensive fragmentation.

Comment: NSS Ranks are reviewed and revised with each SWAP revision. No changes were made for this species in this revision.

Introduction

Bigmouth shiner core distribution extends from northern Minnesota to eastern Illinois, and west to central Wyoming. Disjunct populations are in western New York and Pennsylvania, northern West Virginia, northern Ohio, western Michigan, and Manitoba. In Wyoming they are found in the North and South Platte river drainages.

Bigmouth shiners search stream bottoms during night for aquatic insects, apparently using taste to locate food (Pflieger 1997). Little is known about their reproductive behavior although they are thought to spawn in July and August (Baxter and Stone 1995). Bigmouth shiner may exhibit similar reproductive behavior as other species in their genus, which spawn in open water over fine sand, with fertilized eggs sent drifting in the water column (Baxter and Stone 1995). Eggs will develop and hatch out in one or two days (Weitzel 2002).

Habitat

Bigmouth shiners prefer low gradient streams with perennial flows and sand substrates and open waters free of vegetation or other cover (Weitzel 2002). In Wyoming they were found in perennial streams throughout much of their historic range at sites with sand and gravel substrates present and light to heavy aquatic vegetation (Moan et al. 2010).

Problems

- There is a relative absence of basic reproductive information for the species.
- Altered flow regimes, habitat fragmentation, and impacts to aquatic and riparian habitat associated with agricultural practices.
- Lack of connectivity resulting from low flows or other physical barriers (natural and man made) may significantly limit access to upstream habitats.

Conservation Actions

- Continue efforts to educate landowners and the public about the importance of native fish and their habitats.
- Continue efforts to maintain flows and connectivity.

Monitoring/Research

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

Recent Developments

Detailed fish and habitat surveys were conducted in tributaries to the North Platte River between 2005 and 2009 to establish a baseline for future trend analysis in the North Platte drainage (Gerrity 2009, Moan et al. 2010). In 2005 and 2007, the Casper Region Fish Management crew conducted non-game fish surveys in the lower sections of the mainstem North Platte River (WGFD 2006, WGFD 2008).

The Casper Fisheries Management Crew found BMS in low abundance during surveys of North Platte River side channels, backwaters, and streambank margins during 2012-2013. These native fish surveys were conducted at various sites from Casper downstream to the Nebraska state line (WGFD 2012, 2013).

The Laramie Fisheries Management Crew found a single BMS in the Laramie River downstream of Grayrocks Reservoir in 2012 (WGFD 2012).

Multiple surveys on Lodgepole and Horse creeks and the Laramie River were conducted by the Aquatic Assessment and Laramie Fish Management crews in 2014-2015 as part of the Eastern Wyoming Intermittent Streams project. Bigmouth Shiner were found in low abundance on both streams. Results are on file and will be detailed in a forthcoming administrative report.

References

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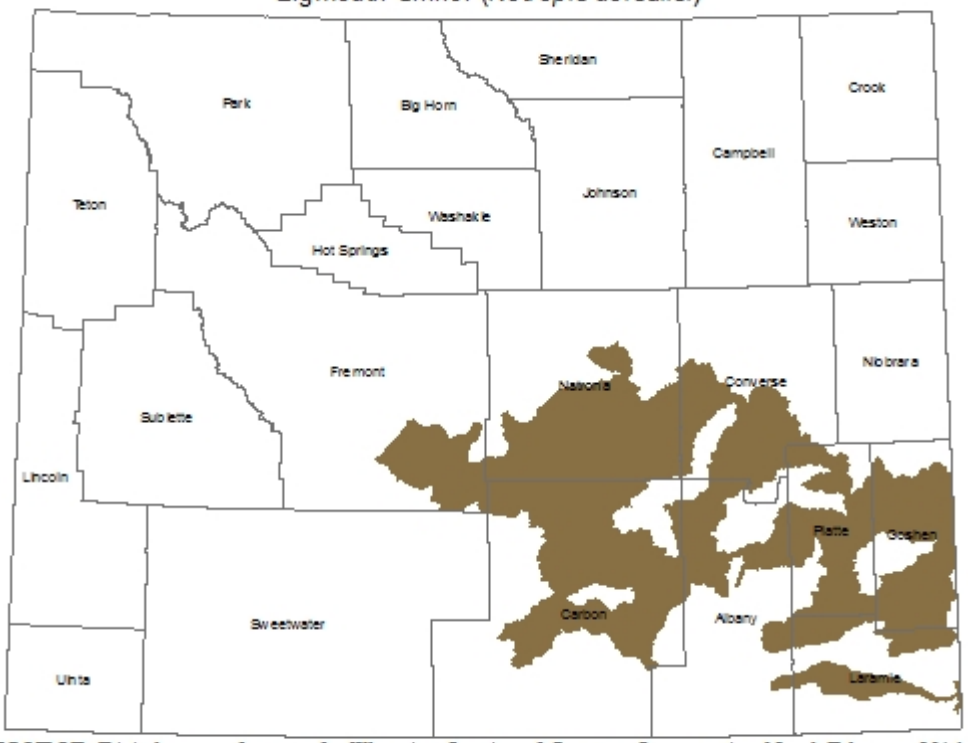
Bigmouth Shiner (*Notropis dorsalisi*)



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.