

Iowa Darter - *Etheostoma exile*

Abundance: Rare

Status: NSS3 (Bb)

NatureServe: G5 S3

Population Status: Vulnerable due to decreasing abundance and distribution. Appear to be decreasing in distribution over the last decade. Difficult to distinguish from orangethroat darter

Limiting Factor: Habitat: severe due to increasing turbidity limiting preferred habitat

Comment: New survey information indicates that abundance and distribution are more restricted than previously thought

Introduction

Iowa darter are found in the northern regions of the United States and throughout Canada. Their U.S. distribution stretches from Montana to New York and south to New Mexico. Wyoming makes up the western edge of their distribution.

In Wyoming, they have been found in the Niobrara, North Platte, and South Platte River drainages. Iowa darters actively feed along stream bottoms during both day and night, mostly consuming small aquatic insects (Baxter and Stone 1995). Spawning occurs in late April to July, under the cover of submerged objects or undercut banks. Males move into shallow waters and establish a territory where the females will deposit a few eggs per spawning event. The male will defend the territory but will not provide parental care (Weitzel 2002).

Habitat

Iowa darter prefer cool, slow moving vegetated waters with little to no turbidity and sand or gravel substrates, but will use a variety of available habitats. In Wyoming, they were found at sites with slow moving water, with light to heavy vegetation and cobble to silt substrates. Greatest numbers were collected at sites with few or no predators (Moan et al. 2010).

Problems

- h Absence in 2009 detailed surveys of Lodgepole Creek. Iowa darters had been found in previous 1993 and 2006 surveys but were not found in 2009.
- h Reduced numbers found in association with piscivores (brown trout and creek chub) in the Lower Laramie River.
- h Limited numbers and restricted populations, making them susceptible to extirpation from disease and habitat alterations.

Conservation Actions

- h Determine limiting factors for Lodgepole Creek fish populations.

Monitoring/Research

initiate routine monitoring in the Lodgepole Creek drainage to monitor the fish community and to determine if the Iowa darter has been extirpated from the drainage.

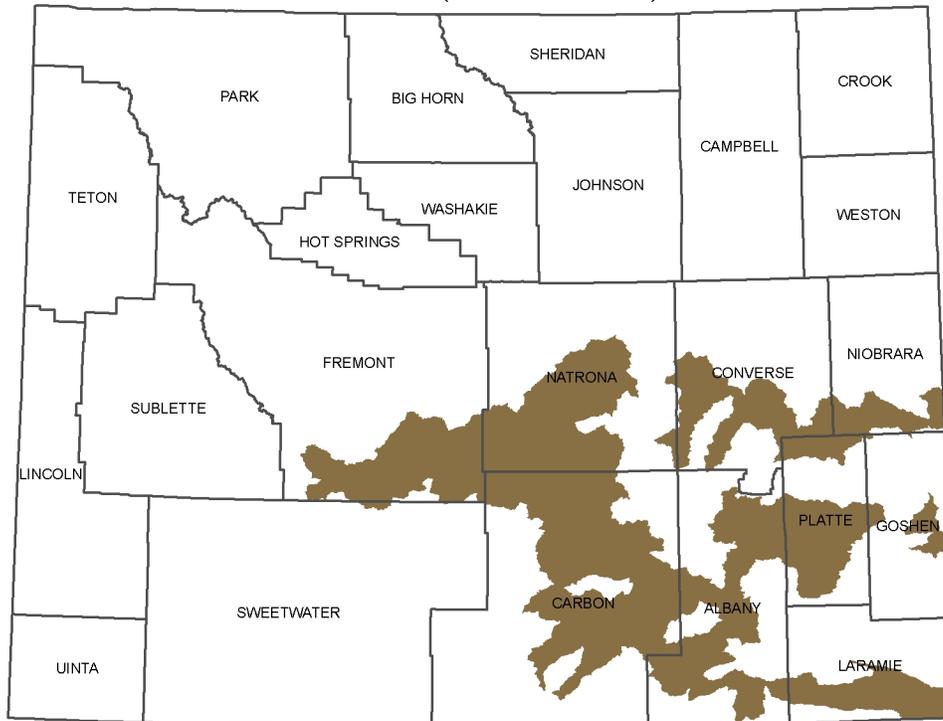
Recent Developments

Detailed fish and habitat surveys were conducted in tributaries to the North Platte River in 2004-2005 (Bear and Barrineau 2007) and 2008-2009 (Moan et al. 2010) to establish a baseline for future trend analysis in the North Platte drainage. During the 2004-2005 surveys, Iowa darters were found in Antelope Creek (Chugwater Creek drainage) and in the Niobrara and Laramie rivers. The species was found at sites in the Niobrara and Laramie rivers in 2010, but was not found in the Chugwater Creek drainage. Patton (1997) and Barrineau (2006, unpublished data) found that Iowa darters were relatively common in the Lodgepole Creek watershed. However, the species was not found during the 2008-2009 surveys in the watershed (Moan et al. 2010), indicating a potential decline in distribution in the South Platte River basin in Wyoming.

The Casper Region Fish Management crew conducted nongame fish surveys in the lower mainstem North Platte River in 2005 and 2007. Iowa darters were found at two locations between Guernsey and Torrington, Wyoming in 2007 (WGFD 2008). Iowa darters were also sampled in Big Muddy Pond near Glenrock, Wyoming in 2005 (WGFD 2006).

References

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- Baxter, G.T., and M.D. Stone. 1995. Fishes of Wyoming. Wyoming Game and Fish Department, Cheyenne.
- Weitzel, D. L. 2002. Conservation and Assessment for the Iowa Darter (*Etheostoma exile*) and the Johnny Darter (*Etheostoma nigrum*): Wyoming's common darters. .
- Bear, B., and C. Barrineau. 2007. Status of habitat and native fish in southeast Wyoming prairie streams. Wyoming Game and Fish Department Administrative Report, Cheyenne.
- Moan, C. A., M. M. McGree, and G. P. Edwards, Jr. 2010. Prairie stream conservation in southeast Wyoming. Wyoming Game and Fish Department Administrative Report, Cheyenne, WY.

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SOURCE: Digital maps of ranges for Wyoming Species of Greatest Conservation Need: April 2010. Wyoming Game and Fish Department. Note that brown indicates the current known range of the species.