

## Plains Topminnow - *Fundulus sciadicus*

Abundance: Rare

Status: NSS3 (Bb)

NatureServe: G4 S3

Population Status: Vulnerable due to limited distribution in native range. Distribution may be declining in native range (North Platte and South Platte drainages).

Limiting Factor: Habitat: severe due to limited availability of preferred shallow, backwater habitats.

Comment: New survey information indicates that this species is more abundant and widespread than previously thought. Habitat loss and competition with introduced species (western mosquitofish and brook stickleback) are serious threats, but extirpation is not imminent.

### Introduction

The distribution of the plains topminnow ranges from South Dakota to Oklahoma and from eastern Wyoming to western Iowa in the streams within the Great Plains region (Baxter and Stone 1995; Rahel and Thel 2004). In Wyoming, they are found in the North Platte, South Platte, Niobrara, and Cheyenne river drainages, but are considered introduced to the Cheyenne drainage (Baxter and Stone 1995; Rahel and Thel 2004). Little is known about the feeding habits of plains topminnow, but insects are probably an important component of their diet (Pflieger 1997). Spawning occurs in late spring and early summer, and eggs are deposited on aquatic plants or algae (Pflieger 1997). They may reproduce in the same areas of aquatic vegetation that they occupy throughout the year (Rahel and Thel 2004). Little is known about the life history of plains topminnow.

### Habitat

The plains topminnow prefers shallow, slow water in clear streams with heavy vegetation (Rahel and Thel 2004) and sand or gravel substrate (Baxter and Stone 1995). They have also been collected in vegetation-filled sloughs and backwaters (Baxter and Stone 1995).

### Problems

- h Introductions of western mosquitofish (*Gambusia affinis*) have been implicated in the current restricted distribution of plains topminnow in Nebraska and may be affecting populations in Wyoming (Rahel and Thel 2004).
- h The plains topminnow occupies habitats that are impacted by natural and anthropogenic dewatering.

### Conservation Actions

- h Continue efforts to educate landowners and the public about the importance of native fish and their habitats, including the development of a prairie stream conservation brochure.

### Monitoring/Research

None

### Recent Developments

Prairie stream surveys were completed in 2004-2005 (Barrineau et al. 2007; Bear and Barrineau 2007) and 2008-2009 (McGree et al. 2010; Moan et al. 2010) to assess the distribution of this species in eastern Wyoming and to determine potential conservation actions.

### References

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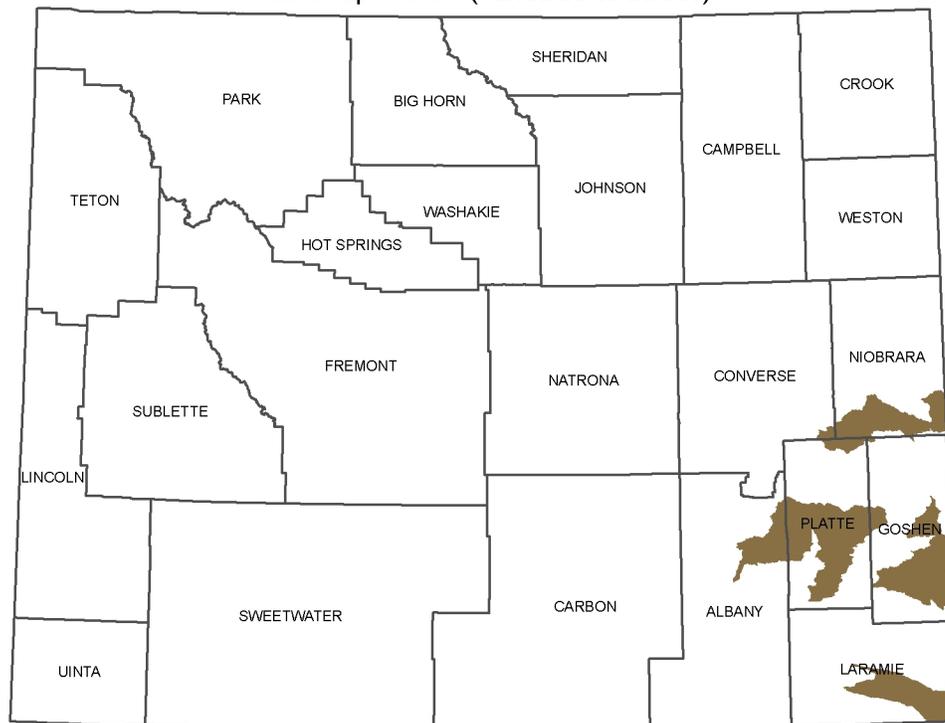
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Rahel, F.J. and L.A. Thel. 2004. Plains topminnow (*Fundulus sciadicus*): a technical conservation assessment. USDA Forest Service, Rocky Mountain Region, Laramie, Wyoming.

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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.