

## Kendall Warm Springs Dace - *Rhinichthys osculus*

Abundance: Common within an extremely limited range

Status: NSS1 (Aa)

NatureServe: G5T1 S1

Population Status: Greatly restricted in distribution and extirpation is possible. A decline in relative abundance has been documented during routine sampling.

Limiting Factor: Habitat: habitat is extremely limited and any loss of habitat or change in habitat conditions may result in extinction of the species.

Comment:

### Introduction

This is a diminutive subspecies of the speckled dace, typically achieving a length of less than 2 inches. It resides solely in a warm spring tributary to the Green River within the Bridger-Teton National Forest. Kendall Warm Springs dace are found well distributed throughout all but the upper portion of the 984-foot long spring creek. This dace has been seen to spawn year-round, but the majority of young have been observed from late June through September. At time of spawning it sports spawning tubercles while the body and fins turn a bright purple.

### Habitat

Kendall Warm Springs dace are found well distributed throughout all but the upper portion of the spring creek (Binns 1978). The temperature of Kendall Warm Springs has a near constant temperature of 85 degrees F. Habitat consists of moderate to fast riffles, several man-made pools less than 3 feet deep and shallower boggy areas. Adults are seen in the main current and pools while juveniles are seen in vegetated lateral habitats (Binns 1978).

### Problems

- h The species' habitat is extremely limited and vulnerable to any natural or anthropogenic perturbations
- h Lack of ungulate hoof action to keep the stream wide and shallow has resulted in narrowing and deepening of the channel.

### Conservation Actions

- h Implement a grazing regime that would be beneficial to the species.
- h Complete recovery plan.

### Monitoring/Research

US Forest Service personnel conduct population monitoring for the USFWS.

### Recent Developments

In 2007, the USFWS completed a five-year review of the Kendall Warm Springs dace (USFWS 2007) and determined that no change in ESA status was warranted.

### References

Gryska, A. D., and W. A. Hubert. 1995. Development of Population Monitoring Techniques and Description of life history parameters for the Kendall Warm Springs dace. Progress Report. Progress Report submitted to the U.S. Fish and Wildlife Service in fulfillment of obligations under Cooperative Agreement No: 14-48-0009-94-1542, Research Work order 128.

Gryska, A. D., and W. A. Hubert. 1997. Observations on the reproduction, sources of mortality and diet of the Kendall Warm Springs dace. Great Basin Naturalist 57: 338-342.

Gryska, A. D., and W. A. Hubert. 1998. Relative abundance and lengths of Kendall Warm Springs dace captured from different habitats in a specially designed trap. Transactions of the American Fisheries Society 127:309-315.

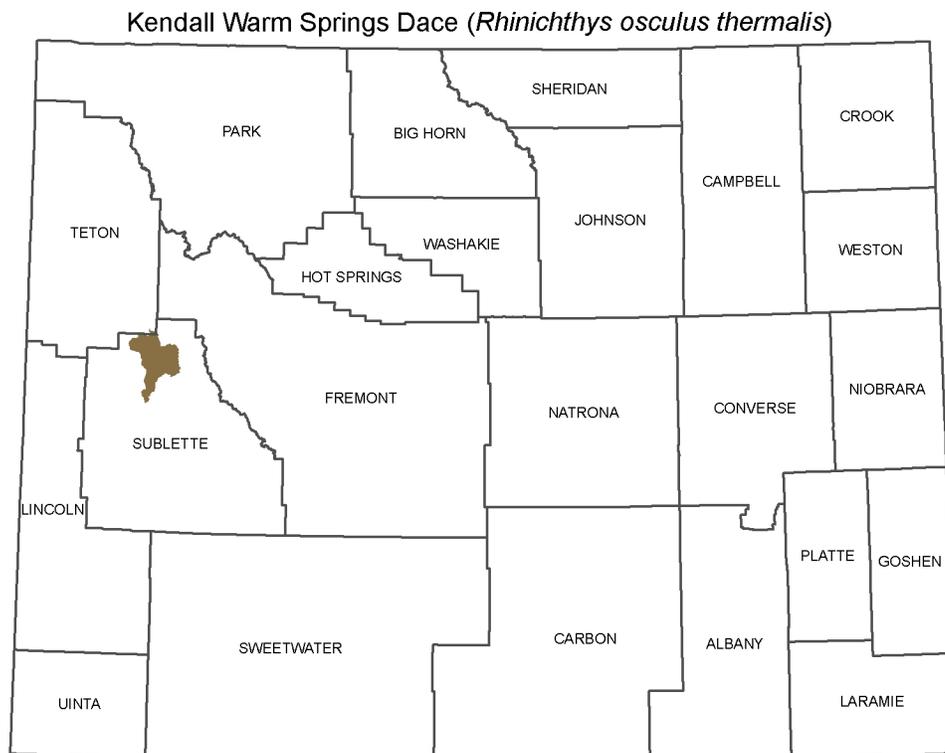
Jelks, H. L., S. J. Walsh, N. M. Burkhead, and others. 2008. Conservation status of imperiled North American freshwater and diadromous fishes. Fisheries 33:372-407.

USFWS. 2007. Kendall Warm Springs Dace (*Rhinichthys osculus thermalis*) 5-year review: summary and evaluation. U. S. Fish and Wildlife Service, Cheyenne.

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

Binns, N.A. 1977. Habitat Structure of Kendall Warm Springs, with reference to the Endangered Kendall Warm Springs Dace, *Rhinichthys osculus thermalis*. Fisheries Technical Bulletin No. 4. Wyoming Game and Fish Department, Cheyenne. 45pp.

Kaya, C.M., P.F. Brussard, D.G. Cameron, W.R. Gould, and E.R. Vyse. 1989. A comparison of morphometrics, thermal tolerance, and biochemical genetics of the Kendall Warm Springs dace (*Rhinichthys osculus thermalis*) and speckled dace (*R.o. yarrowi*) of the upper Green River drainage in Wyoming. Project Report, U.S. Fish and Wildlife Service, Endangered Species Office. 32pp.



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.