

## Calico Crayfish - *Orconectes immunis*

Abundance: Unknown

Status: NSS4 (Bc)

NatureServe: G5 SNR

Population Status: Survey information indicates populations are restricted

Limiting Factor: Habitat but limiting factors are not well understood

Comment: None

### Introduction

The calico crayfish or papershell crayfish (*Orconectes immunis*) is typically dark gray with an olive or purple tint (Pflieger 1996). The pincers tend to be light gray with white tubercles and purple or pink fingers. Males and females are similar in size (adults 4.3 to 8.9 cm (1.7-3.5 inches) in length). The calico crayfish has a large native range, including the Ohio, Mississippi, and Missouri River drainages. The calico crayfish is native from Quebec to Tennessee and New York to Wyoming and Montana; however, this crayfish is exotic in Pennsylvania and six states in the northeastern United States (NatureServe 2009). In the crayfish's native range, this species is considered vulnerable (North Dakota) to secure (Iowa, Illinois, Indiana, and Tennessee). The calico crayfish primarily eats algae, but may also consume detritus and aquatic invertebrates (Pflieger 1996). To avoid freezing or drying conditions, this crayfish will make simple burrows in the substrate. Mating occurs during the active season and eggs may be laid in the fall or spring. In Wyoming, the calico crayfish is native to the Missouri River drainage, where the crayfish was the most commonly collected species east of the continental divide (Hubert 1988). However, the calico crayfish was introduced in the Green River drainage of Wyoming and is present in Flaming Gorge Reservoir where no crayfish are native.

### Habitat

Ditches, floodplains, pools, and intermittent streams are habitats where the calico crayfish may occur (Pflieger 1996). The crayfish inhabits the floodplains of medium to large rivers and intermittent prairie headwater streams. Aquatic habitats with mud bottoms and lacking strong current are places the calico crayfish may live. Aquatic vegetation, flooded terrestrial vegetation, or high turbidity often provides cover for this species.

### Problems

- h The calico crayfish was introduced in the Green River drainage (Hubert 1988). The absence of predatory fish may be associated with higher densities of the calico crayfish (Pflieger 1996).
- h None are known in Wyoming, but it was found to be most abundant in the absence of introduced crayfish and sport fish (Pflieger 1996).

### Conservation Actions

- h None.

### Monitoring/Research

None

### Recent Developments

In 2009, the Wyoming Game and Fish Department personnel completed new statewide collections of crayfish to expand upon and update the survey by Hubert (1988). Hubert (2010) found that the calico crayfish was collected in the Green River, North Platte River, and Big Horn River drainages of Wyoming. *Orconectes virilis* appears to be displacing the calico crayfish in some locations.

### References

- Hubert, W. 1988. Survey of Wyoming crayfishes. *The Great Basin Naturalist* 48:370-372.
- Pflieger, W.L. 1996. *The Crayfishes of Missouri*. Missouri Department of Conservation, Jefferson City, Missouri.
- NatureServe. 2009. NatureServe Explorer: An online encyclopedia of life [web application] Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed: January 14, 2010).
- Hubert, W. A. 2010. Survey of Wyoming crayfishes: 2007-2009. Wyoming Game and Fish Department, Cheyenne.

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SOURCE: Digital maps of ranges for Wyoming Species of Greatest Conservation Need; April 2010. Wyoming Game and Fish Department. A range map is unavailable for the taxa because distribution and ecology are poorly known in Wyoming.