

Western Silvery Minnow (*Hybognathus argyritis*) Status: NSS1; NatureServe G4 S2

Abundance: Uncommon

Introduction: The stout body of the western silvery minnow terminates in a deeply forked tail. It has a relatively small head and large eye and is stout bodied. The head is small with a large eye; its caudal fin is deeply forked. Western silvery minnows are difficult to distinguish from the plains minnow and the brassy minnow. The western silvery minnow's diet and breeding behavior are poorly understood.

Habitat: This minnow prefers large to medium sized rivers with sluggish flow and silted bottoms. They are typically found in shallow backwaters and slow pools with sand or gravel substrates. They are more abundant in clear water and show intolerance for turbidity and pollution. Western silvery minnows occur in the Belle Fourche, Little Powder, and Little Missouri rivers. They are believed to persist in the Powder River but recent surveys did not find them. They are believed extirpated from the Big Horn River. Often, it's associated with the more common plains minnow.

Problems:

Dewatering and habitat degradation, especially increased siltation are serious threats to the western silvery minnow. Introduced competitors like the emerald shiner and predacious gamefish have been considered a potential problem. It is considered secure and fairly widespread across its range though in Saskatchewan, Kansas, and Missouri it is of special concern. In Wyoming its presence is extremely isolated and habitats are declining or vulnerable.

Conservation Actions:

- Studies are needed to better understand the population genetic structure.
- A better understanding of the habitat and flow requirements of this species is needed to assess the impacts of water and land use activities.
- A better understanding of the basic biology, life history and ecology is needed.
- Monitoring protocols and sites should be identified and routinely sampled.
- Surveys are needed to provide baseline data and monitor distribution and population trends. These data may be used to identify specific threats and identify management needs and priorities.

References and Additional Reading:

Baxter, G.T., and M.D. Stone. 1995. Fishes of Wyoming. Wyoming Game and Fish Department, Cheyenne. 290pp.

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Weitzel, D. L., 2002. Conservation and Status Assessments for the Sturgeon Chub (*Macrhybopsis gelida*), Western Silvery Minnow (*Hybognathus argyritis*), and Goldeye (*Hiodon alsosides*): Rare Fish Species of the Upper Missouri River Drainage, Wyoming. Wyoming Game and Fish Department, Cheyenne. 38pp.

