
Western Ridged Mussel

Gonidea angulata

Bivalvia — Unionida — Unionidae

CONSERVATION STATUS / CLASSIFICATION

Rangewide: Vulnerable (G3)
Statewide: Imperiled (S2)
ESA: No status
USFS: Region 1: No status; Region 4: No status
BLM: No status
IDFG: Not classified

BASIS FOR INCLUSION

Reduced distribution and declining populations rangewide; habitat degradation.

TAXONOMY

No subspecies is recognized.

DISTRIBUTION AND ABUNDANCE

This freshwater mussel is found in southern British Columbia, Washington, Oregon, California, Nevada, and Idaho. Historically, populations existed in much of the Snake River, the Clearwater River, the Salmon River, and the Little Salmon River within Idaho. According to Frest (1999), a number of historical colonies have been extirpated, including those in a large portion of the Snake River. Currently, populations are thought to be extant in parts of the middle Snake River, Hells Canyon, the lower Salmon River, and the lower Little Salmon River (Frest and Johannes 1997).

POPULATION TREND

According to Frest (1999), this species is declining in terms of range and number of sites and individuals.

HABITAT AND ECOLOGY

The western ridged mussel inhabits creeks and rivers. Populations usually occur in coarse substrates, but sometimes occur in firm mud. These filter-feeders are more pollution-tolerant compared to some mussels and clams, but they are not found in highly polluted areas or in areas with unstable or very soft substrate (Frest 1999).

Larval western ridged mussels are fish parasites, attaching to the fins or gills of host fish. The host fish is unknown (Frest 1999).

ISSUES

Habitat loss is the primary threat to populations; the western ridged mussel is a cold-water filter feeder and is fairly sensitive to heavy nutrient enhancement and high levels of pollution. Eutrophication of a large portion of the middle Snake River has been attributed to effluence from freshwater aquaculture, agriculture, and urban and

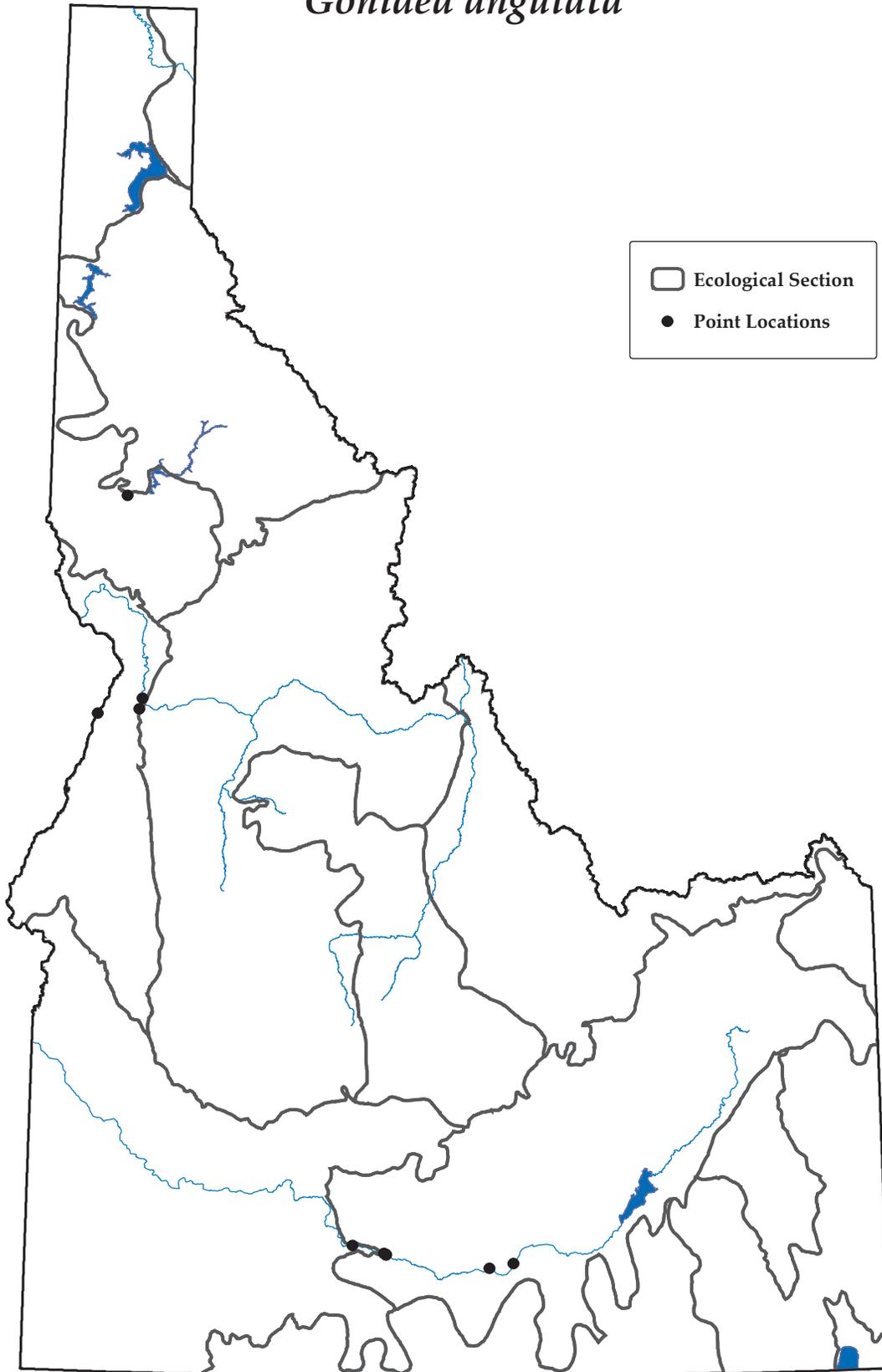
residential developments. The Snake River has been altered by dams, causing changes in aquatic temperature regimes and sedimentation patterns. Threats also include mining, particularly gravel and hydraulic gold mining, in some parts of the range. Change to the distribution and abundance of host fishes is also a potential threat (Taylor 1981, Frest 1999).

RECOMMENDED ACTIONS

Patterns of distribution and abundance are poorly known, and additional surveys are needed throughout the state. Efforts are needed to identify and prioritize conservation of important populations.

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1 August 2005
Point data are from Idaho Conservation Data Center,
Idaho Department of Fish and Game.

