Snake River Physa

Physa natricina

Gastropoda — Basommatophora — Physidae

CONSERVATION STATUS / CLASSIFICATION

Rangewide:	Critically imperiled (G1)
Statewide:	Critically imperiled (S1)
ESA:	Endangered
USFS:	Region 1: No status; Region 4: No status
BLM:	Threatened, Endangered, Proposed, and Candidate (Type 1)
IDFG:	Not classified

BASIS FOR INCLUSION

Endangered under the U.S. Endangered Species Act.

TAXONOMY

This species is monotypic. Because very few specimens have been collected, the taxonomic affinities and placement of this species are not fully understood.

DISTRIBUTION AND ABUNDANCE

This aquatic snail is endemic to Idaho, occurring in a limited reach of the middle Snake River. The “modern” historic range is thought to extend from the Hagerman reach to Grandview. It was also recorded from Minidoka Dam in 1987. Two remaining colonies are believed to exist in the Hagerman and King Hill reaches and 1 colony may persist immediately downstream from Minidoka Dam. Fewer than 50 individuals are thought to have been collected from the Snake River (U. S. Fish and Wildlife Service 1995). No live individuals have been found in recent years and the current status of populations is unknown.

POPULATION TREND

Population trend is not known, but is presumed to be downward. Very few individuals have been collected, and no live individuals have been found during recent years.

HABITAT AND ECOLOGY

Because very few individuals have been found, little is known about the habitat affinities or ecology of this species. The Snake River physa is believed to inhabit deep water on the margins of moderately swift rapids or riffles. Individuals have been found in relatively undisturbed areas with gravel, boulder, or cobble substrates and a low percentage of epiphytic algae or macrophytes (Frest 1999, U. S. Fish and Wildlife Service 1995).

ISSUES

Effluence from agriculture, freshwater aquacultures, human settlement, and industrial development has resulted in the eutrophication of the middle Snake River. The

presence of impoundments and dams alters the temperature regime and the dynamics of the river, which may possibly affect this sensitive cold-water species. A landslide in 1994 possibly impacted their habitat as well. Moreover, the EPA and the state of Idaho have declared this area water quality limited. Lastly, introductions of exotic mollusks are also a potential threat (Frest 1999).

RECOMMENDED ACTIONS

A recovery plan has been developed for the federally listed snails occurring in the Snake River, which includes this species. Objectives of the plan include protection of the remaining free-flowing mainstem and cold-water spring habitats in occupied reaches of the Snake River, stabilization of water levels, improvement of water quality, augmentation of flows above Milner Dam, and control of exotic species (U. S. Fish and Wildlife Service 1995). U. S. Fish and Wildlife Service has also implemented a monitoring program. Increasing, self-sustaining colonies at monitoring sites over a 5 year period are required for recovery.

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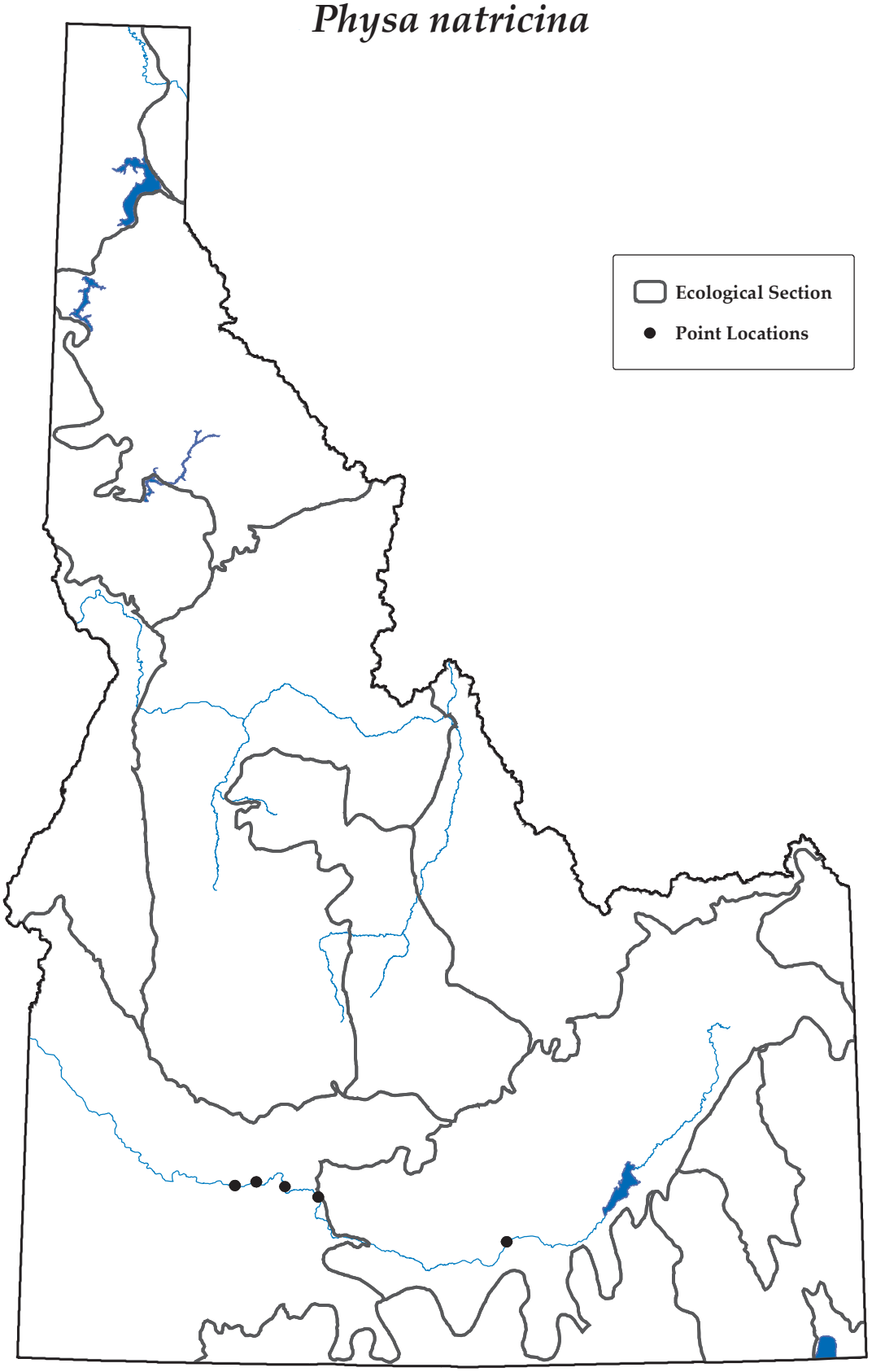

0 20 40 80 Kilometers

0 20 40 80 Miles

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