
Northern Leatherside Chub

Lepidomeda copei

Actinopterygii — Cypriniformes — Cyprinidae

CONSERVATION STATUS / CLASSIFICATION

Rangewide: Critically imperiled/Imperiled (G1G2)
Statewide: Imperiled (S2)
ESA: No status
USFS: Region 1: No status; Region 4: No status
BLM: Regional/State imperiled (Type 3)
IDFG: Protected nongame

BASIS FOR INCLUSION

Limited, disjunct, and declining populations.

TAXONOMY

Two evolutionarily distinct species of leatherside chub have recently been recognized. This taxon was formerly considered to be conspecific with the southern leatherside chub and to be in the genus *Gila* (Johnson and Jordan 2000, Dowling et al. 2002, Johnson et al. 2004).

DISTRIBUTION AND ABUNDANCE

The historical range of northern leatherside chub encompassed portions of the Bear River drainage at the northeastern margins of the Bonneville Basin in Utah, Idaho and Wyoming, and in tributaries of the Snake River in Idaho, including Goose Creek, the Wood River, and Raft River (Baxter and Simon 1970, Simpson and Wallace 1982, Sigler and Sigler 1987, Johnson et al. 1995). The species has not been found during recent surveys in the Wood River or Ross Fork drainages. Populations persist in the Goose and Raft River drainages and in the upper Salt River tributaries along the Idaho–Wyoming border (Wilson and Belk 1996). The size of these disjunct populations appears to be small.

POPULATION TREND

Population trend is not known for extant populations. A number of age classes have been observed, suggesting that reproduction and juvenile recruitment is being maintained. Some populations have been extirpated, however, suggesting an overall decline in population size; directed surveys by IDFG staff failed to find the species in the Little Wood River drainage during the 1990s.

HABITAT AND ECOLOGY

The northern leatherside chub inhabits desert streams of the Bonneville Basin and Snake River drainages. The elevation range is 1250–2750 m (4100–9000 ft). The temperature range utilized by this species has been reported to be 10–23 C (50–73 F), but optimal conditions may be somewhat narrower, perhaps about 15–20 C (60–68 F) (see Sigler and Sigler 1987). Habitat characteristics also include low water velocity

(2.5–45.0 cm/sec), intermediate water depths (25–65 cm), and substrate consisting of coarse fines (Wilson and Belk 2001).

Johnson et al. (1995) determined the life span of the southern leatherside chub to be at least 8 years. Growth rate for both species is rapid in early years but decreases at the onset of sexual maturity. Reproduction begins at 2 years or at lengths >50 mm total length. Time of spawning is variable and may be influenced by temperature. In Wyoming, spawning has been observed in late summer. A female may lay as many as 2573 eggs but fecundity is related to length and weight. The average egg production of a mature leatherside chub female is 1813 eggs.

ISSUES

The current distribution of populations is incompletely understood. Targeted surveys have been limited to Goose, Raft, and Little Wood river drainages.

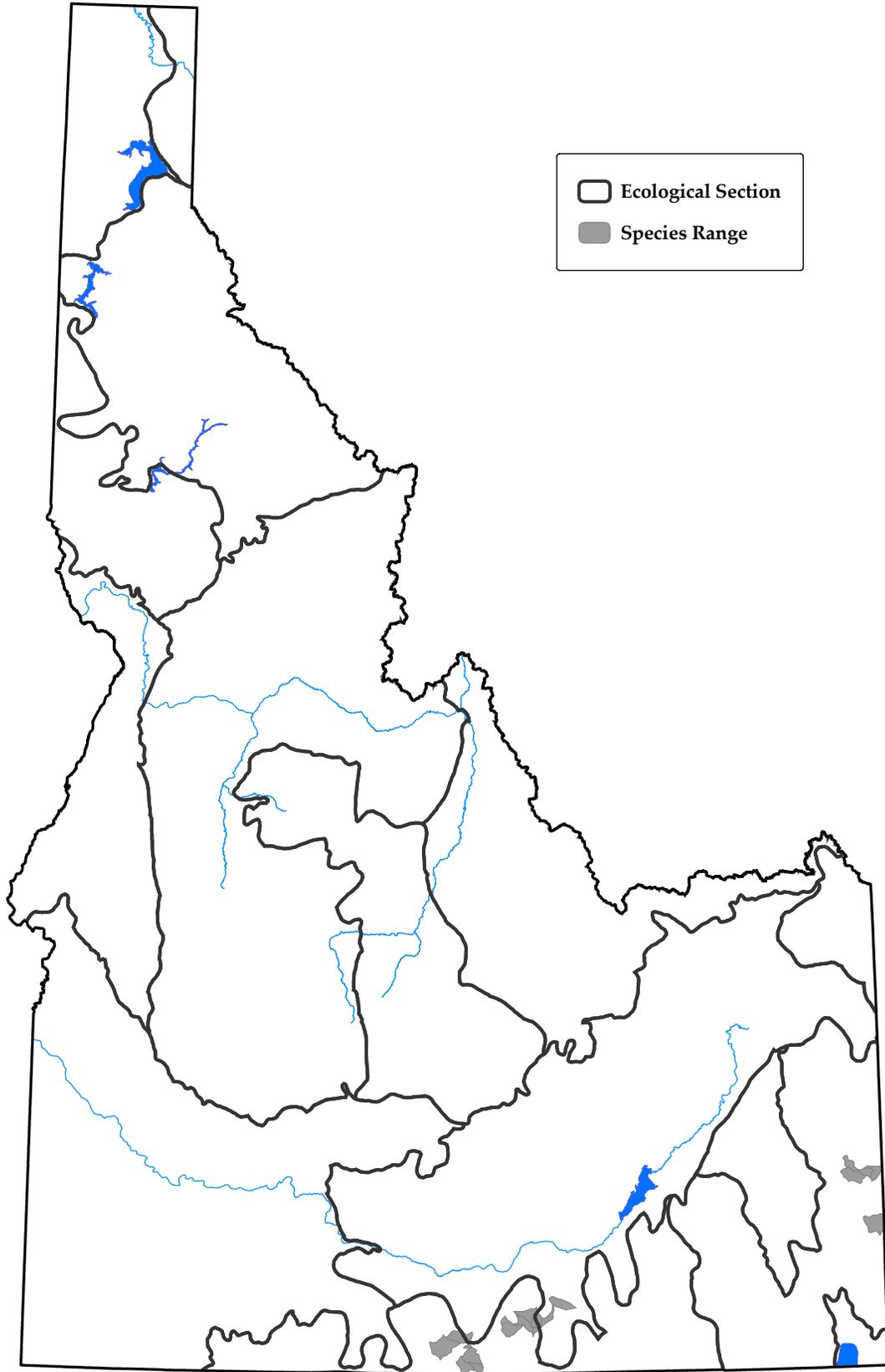
Habitat degradation, fragmentation, and loss from water development (e.g., diversions and dams), stream alterations (e. g., channelization, barriers, etc.), and grazing are significant threats to northern leatherside chub populations. Channelization decreases depth, increases water velocity and removes instream structure, reducing the quantity and quality of habitat. Grazing practices can alter sediment transport regimes and streambank stability and can change water quality, substrate composition, and channel structure (Armour et al. 1991). Specific ramifications include loss of instream cover, increased water temperature, and loss of preferred substrate. The introduction of non–native fish predators has also contributed to declines.

RECOMMENDED ACTIONS

Surveys should be conducted to determine if additional viable populations remain in Idaho. Water management decisions should consider the maintenance and improvement of flows in streams. Work with federal land managers and private landowners to improve instream and riparian habitats. Management of non–native fishes need to consider impacts on native species.

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Fish information is from Idaho Fish and Wildlife Information System, Idaho Department of Fish and Game and displayed at the 6th code hydrologic unit.

