

Flannelmouth Sucker (*Catostomus latipinnis*)

Species Status Statement.

Distribution

Flannelmouth sucker occurs in the mainstem of the Green and Colorado rivers, as well as tributary streams in the Colorado River Basin in Utah, Wyoming, Colorado, New Mexico, Nevada, and Arizona (Bestgen and Bezzerides 2002). In the upper Colorado River Basin, the species now occupies around 50% of its historical habitat (Bestgen and Bezzerides 2002). In Utah, this species now occurs in the Colorado, Green, Dolores, Duchesne, Escalante, Fremont, Price, San Rafael, Strawberry, Virgin, and White rivers, as well as Starvation Reservoir (Bezzerides and Bestgen 2002).

Table 1. Utah counties currently occupied by this species.

Flannelmouth Sucker	
CARBON	KANE
DAGGETT	SAN JUAN
DUCHESNE	UINTAH
EMERY	WASHINGTON
GARFIELD	WAYNE
GRAND	

Abundance and Trends

In Utah, flannelmouth sucker abundance varies by drainage. In northeastern Utah, populations are relatively stable with the exception of the Duchesne River, which has shown limited recruitment (Fiorelli and Breen 2017). In southeastern Utah, populations are relatively stable, as they appear able to recolonize following catastrophic events such as fire or drought (Keller and Hart 2015). In southern Utah, populations remain stable in both the Fremont and Escalante rivers (Woodhouse and Fridell 2017). Overall, in the majority of Utah drainages, the species occurs in a variety of age and size classes, indicating successful recruitment and stable populations.

Statement of Habitat Needs and Threats to the Species.

Habitat Needs

Flannelmouth sucker inhabits large mainstem and tributary systems that exhibit a large variety of habitat characteristics. In these river systems, individuals typically occupy pools and deep runs (UDWR 2006). This species prefers water temperatures ranging from 10 to 27°C and

appears excluded from higher elevation areas for this reason (Carter and Hubert 1995). Substrate preference ranges from mud and silt, to cobble and gravel (Sigler and Sigler 1996). Young fish prefer low velocity habitats such as backwaters and eddies (Fiorelli and Breen 2017). Adults have demonstrated large-scale movement patterns (Fiorelli and Breen 2017), suggesting that this species can make long-distance migrations to complete life history needs.

Threats to the Species

A number of major threats impede conservation of this fish. Most involve either habitat loss and fragmentation, or nonnative species issues. Migrations are important for recolonization of areas that have experienced large loss from threats such as fire or drought, as well as for completing spawning, rearing, growth and survival in the various areas that allow for such needs. Studies document individuals moving up to 239 km (Fiorelli and Breen 2017). Dewatering caused by drought and agricultural/municipal practices is also a threat to a majority of flannelmouth populations in Utah. Dewatering reduces the amount and quality of available habitat, creating isolated populations vulnerable to loss. Nonnative wildlife species create hybridization, competitive and predatory risks (UDWR 2015). Invasive white sucker can cause declines in flannelmouth abundance where they exist (McDonald et al. 2008). Predation can also cause declines in flannelmouth populations at all life stages from larval to adult fish (Rupert et al. 1998; Mueller 2005).

Table 2. Summary of a Utah threat assessment and prioritization completed in 2014. This assessment applies to the species' entire distribution within Utah. For species that also occur elsewhere, this assessment applies only to the portion of their distribution within Utah. The full threat assessment provides more information including lower-ranked threats, crucial data gaps, methods, and definitions (UDWR 2015; Salafsky et al. 2008).

Flannelmouth Sucker
Very High
Agricultural / Municipal / Industrial Water Usage
Droughts
Invasive Wildlife Species - Non-native
Presence of Diversions
Water Allocation Policies
High
Channelization / Bank Alteration (direct, intentional)
Dam / Reservoir Operation
Inappropriate Fire Frequency and Intensity
Oil Shale
Presence of Dams
Spills and Production Water
Tar Sands
Medium
Increasing Stream Temperatures
Invasive Plant Species – Non-native
Nuclear Power Facilities
Pipelines / Powerlines - Energy Development
Sediment Transport Imbalance
Storms and Flooding

Rationale for Designation.

A multi-state Conservation Agreement and Strategy prescribes management actions aimed at conserving flannelmouth sucker to preclude listing under the Endangered Species Act (UDWR 2006). Future proposed actions include a species status assessment headed by the United States Fish and Wildlife Service. Although currently relatively stable in Utah, the distribution and abundance of this species are reduced compared to historic levels (Bezzerrides and Bestgen 2002). Managing current and emerging threats by protecting and improving currently occupied habitat, and restoring connectivity and habitat quality in historic locations, would greatly reduce the possibility of this species' listing under the Endangered Species Act. Measures taken to conserve flannelmouth sucker should also benefit roundtail chub and bluehead sucker.

Economic Impacts of Sensitive Species Designation.

Sensitive species designation is intended to facilitate management of this species, which is required to prevent Endangered Species Act listing and lessen related economic impacts. The listing of flannelmouth sucker would have wide-ranging impacts to developing and managing water resources in Utah. It would also impact recreational fisheries management, and oil and gas development, especially due to habitat impacts from associated infrastructure and water

use and potential contamination during production. There would also be increased costs of regulatory compliance for many land-use decisions and mitigation costs.

Literature Cited.

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