

June Sucker (*Chasmistes liorus*)**Species Status Statement.**Distribution

June sucker is endemic to Utah Lake and its tributaries. The species spends the majority of the year in Utah Lake, but conducts an annual spawning migration up the tributaries in late spring and early summer (often peaking in June, hence its name). Primary spawning locations are the Provo River, Hobble Creek, and the Spanish Fork River (Fonken, 2017). A refuge population exists in Red Butte Reservoir, and hatchery and grow-out facilities are located at the state fish hatchery in Logan, Utah and at Rosebud Ponds in Box Elder County.

Table 1. Utah counties currently occupied by this species.

June Sucker
BOX ELDER
CACHE
SALT LAKE
UTAH
WEBER

Abundance and Trends

Managers estimated that fewer than 1,000 June sucker existed at the time of their Endangered Species Act listing in 1986 (USFWS, 1999). As self-sustaining populations of this species no longer existed in the wild, managers began a captive breeding program, and stocked artificially propagated June suckers into Utah Lake on an annual basis. Additionally, they established a June sucker refuge population in Red Butte Reservoir. Recent modeling has shown an increasing population in Utah Lake, with current estimates of approximately 3,000 spawning adults (Conner, 2018).

Statement of Habitat Needs and Threats to the Species.Habitat Needs

In addition to the main body of Utah Lake, June sucker requires complex delta habitat in order to complete its life cycle. Historically, tributaries dispersed into a series of braided channels and wetlands at their interface with Utah Lake. These areas provide refuge for young suckers, which are extremely vulnerable to predators. Channelization of the Provo River and other tributaries reduced delta habitat and contributed heavily to the decline of the species (USFWS, 1999).

Habitat improvement projects in lower Hobbie Creek, as well as the ongoing Provo Delta restoration project, are helping rehabilitate critical juvenile rearing habitat for June sucker.

Threats to the Species

Self-sustaining populations of this species still do not exist in the wild. The primary threats to June sucker combine to prevent recruitment of wild-spawned fish into the adult population: habitat loss, drought, and in particular, the introduction of invasive species. Common carp, introduced over a century ago, consume and uproot aquatic vegetation in both Utah Lake and its tributaries. This reduces refuge habitat for juvenile June suckers (SWCA, 2002), leaving them vulnerable to a host of introduced predatory fishes. Recently introduced northern pike are large, voracious predators that, if uncontrolled, have the potential to decimate the existing adult June sucker population in Utah Lake (Reynolds, 2017). The long-term reduction of aquatic vegetation by carp, and the recent illegal introduction of northern pike, have made it very difficult for June sucker to complete their natural life cycle. However, with recent major carp control efforts fisheries managers have seen some evidence of natural recruitment, the first in decades. The June Sucker Recovery Implementation Program (JSRIP) has developed a control strategy that has reduced carp biomass by 80% (Gaeta, 2017).

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).

June Sucker
High
Agricultural / Municipal / Industrial Water Usage
Channelization / Bank Alteration (direct, intentional)
Droughts
Invasive Wildlife Species - Non-native
Small Isolated Populations
Water Allocation Policies
Medium
Increasing Stream Temperatures
Lack of Comprehensive Watershed Planning to Improve Water Quality (TMDL)
Presence of Diversions
Roads – Transportation Network
Stormwater Runoff
Unauthorized Species Introductions

Rationale for Designation.

Despite considerable efforts undertaken, recovery goals (USFWS 1999) remain unmet. The threats that have depleted this species require ongoing management. Until managers bring introduced predatory fish species under control, and reverse some portion of historic habitat losses, this species will continue to require intensive management. This merits Sensitive Species designation.

Economic Impacts of Sensitive Species Designation.

Sensitive species designation is intended to facilitate management of this species, which is required to reverse Endangered Species Act listing and lessen related economic impacts. June sucker is currently listed as endangered under the Endangered Species Act. The listing has resulted in extensive costs to mitigate water development and managing water resources in the Provo River system and Utah Lake. It has also resulted in costly efforts to mitigate impacts from nonnative fish introductions and has impacted the management of recreational fisheries in the system. These costs will remain as long as the species is listed under the Endangered Species Act. If the species is downlisted or delisted, continued efforts will be required to mitigate threats and maintain stronger populations.

Literature Cited.

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