Scientific Name: *Catostomus bernardi*
Common Name: Yaqui sucker
BISON No.: 010527

Legal Status:

- Arizona, Species of Special Concern
- ESA, Endangered
- ESA, Proposed Endangered
- ESA, Proposed Threatened
- ESA, Threatened
- New Mexico-WCA, Endangered
- New Mexico-WCA, Threatened
- USFS-Region 3, Sensitive
- None

Distribution:

- Endemic to Arizona
- Endemic to Arizona and New Mexico
- Endemic to New Mexico
- Not Restricted to Arizona or New Mexico
- Northern Limit of Range
- Southern Limit of Range
- Western Limit of Range
- Eastern Limit of Range
- Very Local

Major River Drainages:

- Dry Cimmaron River
- Canadian River
- Southern High Plains
- Pecos River
- Estancia Basin
- Tularosa Basin
- Salt Basin
- Rio Grande
- Rio Mimbres
- Zuni River
- Gila River
- Rio Yaqui Basin
- Wilcox Playa
- Rio Magdalena Basin
- Rio Sonoita Basin
- Little Colorado River
- Mainstream Colorado River
- Virgin River Basin
- Hualapai Lake
- Bill Williams Basin

Status/Trends/Threats (narrative):

Federal (USFS): Endangered, State AZ: wildlife of concern (endangered).
Considered as extinct as reported by Minckley (1973)
The Yaqui sucker was described from San Bernardino Creek, Sonora, Mexico, a few meters south of the Arizona-Sonora border, but was taken a number of times on the Arizona side, and it now is extinct in the United States (Minckley 1973).
Threats to the Yaqui sucker includes pumping of ground waters in the San Bernardino valley and in tributary drainages in Mexico is rapidly increasing, and this sucker may soon be extirpated throughout its range (McNatt 1974).

Distribution (narrative)**:**

The Yaqui sucker is restricted to Rio Yaqui basin, northwestern Mexico (Sonora and Chihuahua) and AZ (Lee et. al. 1981). The Yaqui sucker was recently extirpated from United States (Lee et. al. 1981). This species formally lived in San Bernardino Creek (Miller and Lowe, 1967), and in Austin Wash (McNatt 1974). In the Rio Yaqui basin, Yaqui suckers are widespread from the lowest elevations (on and near the river's delta) to higher than 2000 m in mountain streams (Minckley 1991).

Key Distribution/Abundance/Management Areas:

Panel key distribution/abundance/management areas:

Breeding (narrative)**:**

Very little is known of the biology of this sucker in the United States, or in Mexico for that matter. It presumably behaves similarly to the Sonora sucker in larger waters (Minckley 1973). Spawning is thought to be prolonged from May through mid-August on basis of larvae and pro-larvae (Lee et al 1981).

Habitat (narrative)**:**

The restricted habitat in which it formally occurred in Arizona allowed it to live only in single, shallow, mud-bottomed, elongated pool, surrounded by riparian mesquite and willows and intensively used by domesticated cattle (Minckley 1973). Minckley (1973) found Yaqui suckers in a clear, cool, gravel-bottomed creek tributary to the Rio Magdalena, Sonora, Mexico, noting that the stream was well vegetated by aquatic an semi-aquatic plants, and was shaded by poplars. Yaqui suckers are typically found in deep pools, especially when large in size (Lee et al 1981). They occur in montane streams to elevations of more than 2,600 meters and in larger, mainstream systems lower than 160 m elevation (Lee et al 1981). In AZ, Yaqui suckers inhabit the channel of deeply incised San Bernardino Creek and headwaters springs (Lee et. al. 1981).

Breeding Season:

- January
- February
- March
- April
- May
- June
- July
- August
- September
- October
- November
- December

Panel breeding season comments:

Aquatic Habitats:

Large Scale:

- Rivers
- Streams
- Springs
- Spring runs
- Lakes
- Ponds
- Sinkholes
- Cienegas
- Unknown
- Variable

Small Scale:

- Runs
- Riffles
- Pools
- Open Water
- Shorelines

Panel comments on aquatic habitats:

Important Habitat Features (Water characteristics):

Current

- Fast (> 75 cm/sec)
- Intermediate (10-75 cm/sec)
- Slow (< 10 cm/sec)
- None
- Unknown
- Variable

Gradient

- High gradient (>1%)
- Intermediate Gradient (0.25-1%)
- Low Gradient (<0.25%)
- None
- Unknown
- Variable

Water Depth

- Very Deep (> 1 m)
- Deep (0.25-1 m)
- Intermediate (0.1-0.25 m)
- Shallow (< 0.1 m)
- Unknown
- Variable

Panel comments on water characteristics:

Important Habitat Features (Water Chemistry)

Temperature (general)

- Cold Water (4-15°C)
- Cool Water (10-21°C)
- Warm Water (15-27°C)
- Unknown
- Variable

Turbidity

- High
- Intermediate
- Low
- Unknown
- Variable

Conductivity

- Very High (> 2000 µS/cm)
- High (750-2000 µS/cm)
- Intermediate (250-750 µS/cm)
- Low (< 250 µS/cm)
- Unknown
- Variable

Panel comments on water chemistry:

Important Habitat Features (Structural elements):

Substrate

- Bedrock
- Silt/Clay
- Detritus
- Sand
- Gravel
- Cobble
- Boulders
- Unknown
- Variable

Cover

- Rocks, boulders
- Undercut banks
- Woody debris
- Aquatic vegetation
- Rootwads
- Not important
- Overhanging vegetation
- Unknown
- Variable

Panel comments on structural elements:

Diet (narrative)**:**

There is no information regarding the feeding behavior of the Yaqui sucker.

Diet category (list):

- Planktivore
- Herbivore
- Insectivore
- Piscivore (Fish)
- Omnivore
- Detritivore

Grazing Effects (narrative):

No information regarding cattle grazing and Yaqui sucker. Cattle grazing probably does not impact the Yaqui sucker in high montane streams.

Panel limiting habitat component relative to grazing and comments:
Panel assessment: Is this species a priority for selecting a grazing strategy? Throughout the species' distribution in New Mexico and Arizona YES NO UNKNOWN In key management area(s) YES NO UNKNOWN

Principle Mechanisms Through Which Grazing Impacts This Species (list):

May be Revised

- Alteration of bank structures
- Alteration of substrate
- Alteration of water regimes
- Altered stream channel characteristics
- Altered aquatic vegetation composition
- Altered bank vegetation structure
- Change in food availability
- Change in water temperature
- Change in water quality
- Habitat fragmentation
- Increased turbidity
- Other biotic factors
- Parasites or pathogens
- Population genetic structure loss
- Range improvements
- Trampling, scratching
- Unknown

Panel causal mechanisms comments:

Authors

- **Draft:** Magaña, H.A.
- **GP 2001:**
- **GP 2002:**
- **Revision:**

Bibliography:

Lee, D. S., Gilbert C. R., Hocutt C. H., Jenkins R. E., Callister D. E., and Stauffer J. R. 1981. Atlas of North American Freshwater Fishes: North Carolina, North Carolina State Museum of Natural History, 1981, c1980.

McNatt, R. M. 1974. Re-evaluation of the native fishes of the Rio Yaqui in the U.S., Proceedings of the 54th annual conference of Western Association of State Game and Fish Commissioners, Albuquerque, NM. July 16-19, 1974. pp 273-279.

Minckley, W. L. 1973. Fishes of Arizona. Phoenix, AZ, Sims Printing Co.

Minckley, W.L. 1991. Native fishes of arid lands: A dwindling resource of the desert southwest. USDA Forest Service. General Technical Report RM-GTR-206. pp 18.