Scientific Name: *Cycleptus elongatus*
Common Name: Blue sucker
BISON No.: 010490

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 (FWS): Species of concern. State NM: Endangered.
The depletion of surface water combined with cold winter temperatures and poor water quality stemming from sewage effluent and toxic agricultural runoff have been major causes of the decline of the blue sucker (Sublette et. al. 1990).
Walburg (1971) suggested that upstream migration of the blue sucker has been interrupted by dam constructions, contributing to the decline of this species in New Mexico and elsewhere. He reported significant numbers of blue suckers in tailwaters below dams but virtually none in the reservoir.

Distribution (narrative)**:**

The blue sucker is limited to the largest rivers and lower parts of their major tributaries, from the Rio Grande, Mexico, Texas, and New Mexico, east on the Gulf coast to the Mobile Bay, Alabama; and north in the Mississippi River basin to the Missouri River drainage of eastern Montana and the Ohio River drainage of western Pennsylvania (Lee et. al. 1981, Sublette et. al. 1990). Blue suckers were moderately common in the Texas/Mexico portions of the Rio Grande and occurred from the confluence of the Rio Conchos downstream to the confluence with the Pecos River (**Gilbert 1980**) however, blue suckers were absent in the reaches downstream of Falcon reservoir (**Edwards** and **Contreras-Balderas 1991**). Blue suckers historically inhabited the Pecos River from north of Carlsbad downstream to the Texas/Mexico border (Sublette et. al. 1990).

Key Distribution/Abundance/Management Areas:

Panel key distribution/abundance/management areas:

Breeding (narrative)**:**

Spawning occurs in the spring, apparently in response to rising water temperatures (Propst 1999). Male blue suckers attain maturity at age II and females at age III (Propst 1999). Spawning occurs in rapid velocity water (180 cm/sec) over bedrock and cobble substrate (Propst 1999). The eggs of the blue sucker are adhesive, attach to substrate, and hatch in seven days (Yeager and Semmens 1987, Propst 1999).

Habitat (narrative)**:**

The blue sucker usually inhabits deep river channels and flowing pools (1 to 2 m) with a moderate current (100 to 260 cm/sec) and deep lakes, but seems to do well in at least some impoundments (Lee et. al. 1981, Sublette et. al. 1990). The bottom usually consists of exposed bedrock, with a combination of hard clay, sand, and gravel (Lee et. al. 1981). Juveniles are most common in shallow riffle and cobble habitats where water velocities are as high as 1.2 m/sec (Sublette et. al. 1990, Propst 1999).

Key Habitat Components: swift waters, bedrock to cobble substrate

Breeding Season:

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

Panel breeding season comments:

Seasonal activities:

Coker (1930) recorded movements of the blue sucker to apparent suitable spawning areas during the spring. Adult blue suckers winter in deep pools and move upstream in spring to spawn on riffles (Lee et. al. 1981).

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)**:**

The blue sucker feeds on the bottom, taking mostly midge and caddisfly larvae (**Sublette and Cowley 1987b**) as well as some algae and other plant material. Age 0 blue suckers consume mainly small aquatic insects while adults have broader diets, ingesting aquatic insects, molluscs, filamentous algae, and leaf litter (**Moss et. al. 1983**).

Diet category (list):

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

Grazing Effects (narrative):

No specific information available, but current distribution and size of waters inhabited suggest that grazing probably has a minimal effect, especially relative to known threats such as direct loss of flow and alteration of hydrographs.

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:** Rinne, J.N. and Magaña, H.A.
- **GP 2001:**
- **GP 2002:**
- **Revision:**

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