

Scientific Name: *Ictalurus furcatus*

Common Name: Blue catfish

BISON No.: 010095

Legal Status:

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

Distribution:

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

Major River Drainages:

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

Status/Trends/Threats (narrative):

State NM: Provides full protection. This species is not threatened or endangered.

Distribution (narrative):

Native to major rivers of Mississippi, Missouri, and Ohio basins of central and southern United States, south into Mexico and northern Guatemala (Lee et. al. 1981). Blue catfish are native to the Rio Grande downstream of Bernalillo County and the Pecos River downstream of Puerto Luna (Sublette et. al. 1990). The blue catfish is restricted in the Pecos drainage, and diminishing in the Rio Grande drainage. The blue catfish is also native to the Mississippi, Missouri, and Ohio drainages of central and southern United State and along Gulf Coast drainages of Texas

(Sublette et. al. 1990). Koster (1960) reported the blue catfish from the San Juan River, Rio Arriba County, NM, and it has occurred in the Colorado basin for some time.

Key Distribution/Abundance/Management Areas:

Panel key distribution/abundance/management areas:

Breeding (narrative):

Spawning occurs in late spring and early summer at water temperatures of 21-25 C in a nest (cavity) prepared by the male, often in pools and backwaters (Sublette et. al. 1990).

Habitat (narrative):

The blue catfish is found in larger rivers and reservoirs of New Mexico and tends to be in the larger and quieter waters (Koster 1957). The blue catfish is characteristic of deep areas of large rivers throughout range and considered an inhabitant of swift chutes and pools with swift currents (**Pflieger 1975**). Blue catfish are found principally in large rivers, preferring water with swift current. It is also found in large reservoirs and ponds where it tolerates salinities up to 22 ppt (Sublette et. al. 1990).

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 $\mu\text{S/cm}$)
- High (750-2000 $\mu\text{S/cm}$)
- Intermediate (250-750 $\mu\text{S/cm}$)
- Low (< 250 $\mu\text{S/cm}$)
- 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):

Blue catfish are primarily carnivorous; it also feeds, principally at night, as a scavenger, finding most of its food by searching the bottom with its barbells (Sublette et. al. 1990). Young blue catfish feed primarily on crustaceans and aquatic insects (Sublette et. al. 1990). Fish are the principal prey of blue catfish larger than 20-30 cm (**Brown and Dendy 1961**).

Diet category (list):

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

Grazing Effects (narrative):

No information specific to grazing. Since the blue catfish spawn in pools and backwaters and inhabit deep areas of large rivers it is unlikely that livestock grazing negatively impacts this species.

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

Panel causal mechanisms comments:

Authors

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

Bibliography:

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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

Minckley, W. L. 1973. Fishes of Arizona. Arizona Game and Fish Department. Phoenix, Arizona. 293 pp.

Sublette, J. E., M. D. Hatch, and M. Sublette. 1990. The Fishes of New Mexico. University of New Mexico Press. Albuquerque. 393 pp.