

**Scientific Name:** *Notropis amabilis*

**Common Name:** Texas shiner

**BISON No.:** 000000

**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):**

Sublette et. al. (1990) speculated that the Texas shiner is cold sensitive, and in historic times, was eliminated from upstream stretches of the Pecos River during severe winters. The Texas shiner would then reinvade upper reaches from the downstream portion of the Pecos in Texas, where it occurs today. Dams on the Pecos River now prevent such movements, and the Texas shiner became extirpated in New Mexico (Sublette et. al. 1990).

**Distribution (narrative):**

The Texas shiner is found from the Colorado River to Rio Grande drainages in Texas and northeastern Mexico (Lee et. al. 1981, Page and Burr 1991). In Rio Grande the Texas shiner is

found in Rio San Juan and Rio Salado systems, Mexico, upstream to lower Pecos River, Texas (Lee et. al. 1981).

**Key Distribution/Abundance/Management Areas:**

**Panel key distribution/abundance/management areas:**

**Breeding (narrative):**

No information available.

**Habitat (narrative):**

The Texas shiner is typically found in springs and headwater tributaries, where it may very common, but sometimes occurs in more limited numbers in larger streams (Lee et. al. 1981). Inhabits rocky and sandy runs and pools of headwaters, creeks and small to medium rivers. Usually occurs in clear water (Page and Burr 1991). Water is usually clear, and substrate is typically sand, gravel and rubble (Lee et. al. 1981, Page and Burr 1991).

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

No information available.

**Diet category (list):**

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

**Grazing Effects (narrative):**

No specific information available, but since the Texas shiner inhabits clear waters livestock grazing may potentially cause a negative impact on this species.

<b>Panel limiting habitat component relative to grazing and comments:</b>
<p><b>Panel assessment:</b> 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</p>

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

*\*\*May be Revised\*\**

- |   |   |  |
|---|---|--|
| <ul style="list-style-type: none"> <li>➤ Alteration of bank structures</li> <li>➤ Alteration of substrate</li> <li>➤ Alteration of water regimes</li> <li>➤ Altered stream channel characteristics</li> <li>➤ Altered aquatic vegetation composition</li> </ul> | <ul style="list-style-type: none"> <li>➤ Altered bank vegetation structure</li> <li>➤ Change in food availability</li> <li>➤ Change in water temperature</li> <li>➤ Change in water quality</li> <li>➤ Habitat fragmentation</li> </ul> | <ul style="list-style-type: none"> <li>➤ Increased turbidity</li> <li>➤ Other biotic factors</li> <li>➤ Parasites or pathogens</li> <li>➤ Population genetic structure loss</li> <li>➤ Range improvements</li> <li>➤ Trampling, scratching</li> <li>➤ Unknown</li> </ul> |
|---|---|--|

<b>Panel causal mechanisms comments:</b>
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## **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.

Page, L.M. and Burr, B.M. 1991. A field guide to freshwater fishes of North America north of Mexico. Houghton Mifflin Company, Boston, MA. Pp 136-137, 378.

Sublette, J. E. Hatch M. D. and Sublette M., 1990. The fishes of New Mexico. Albuquerque, NM, University of New Mexico Press.