scientific name	common name
Poecilliopsis occidentalis	Gila topminnow

Bison code 010565

Official status	Endemism
Federal (USDI): endangered State AZ: endangered State NM: endangered	Gila River Basin

Status/threats

Loss of habitat and nonnative, predatory fishes are the major threats to sustainability of the species. The introduced (late 1920s to 1930s), more aggressive and predaceous mosquitofish is the major nonnative fish threat to the species. Records in Arizona document extirpation of topminnow populations in 2-3 years. Since the late 1930s and more recently and intensively since 1980 by the Arizona Game and Fish Department efforts to restore the species to historic range have been largely unsuccessful. Of 175 locations stocked, only 17 have established populations; these are tenuous at best.

Distribution

Formerly widespread and the most common species in the Gila River and its tributaries, extending from the confluence with the Colorado up to the Frisco Hot Springs, San Francisco drainage, southwestern New Mexico. Also present into northern Sonora in the headwaters of the San Pedro and Santa Cruz rivers. Currently exists in Arizona in less than a dozen scattered populations, generally below 1500 m elevation.

Habitat

Typically inhabits lower elevation (< 1,500 m) springs, cienegas and small streams. Historically inhabited shallow, often vegetated margins of probably most aquatic habitats.

Life history and ecology

A short lived (ca. 1yr) member of the live-bearing or Poeciliid family typically occupying springs, cienegas and small streams. Eggs are fertilized internally and young are born alive. A small surface feeding fish preying on mosquito and other aquatic insect larvae, amphipod crustaceans, bottom debris and aquatic vegetation.

Breeding

The species normally breeds from January to August in springs, however, pregnant females are present throughout the year with young produced even in winter. Numbers of young vary from 1 up to 25 per brood. Two broods may be developed simultaneously with intervals of about a month between broods. At peak breeding season, most females greater than 24 mm standard length are pregnant. Sexual dimorphism is present and males become blackened in breeding season. Individuals may mature in a few weeks to a few months.

Key Habitat Components: **springs, cienegas, small streams, slow current and aquatic vegetation**

Breeding season

January to August, with peak in June-July.

Grazing effects

This species could be especially vulnerable to grazing impacts. Trampling and fowling of small springs and removal of vegetation and trampling in cienegas could be very detrimental to local populations.

Selected references

Minckley 1973

Propst, D. L. 1999

Shoenherr,

Meffe, G. K.

Minckley and Deacon

Weedman et al 1997

Meffe, et al 1982