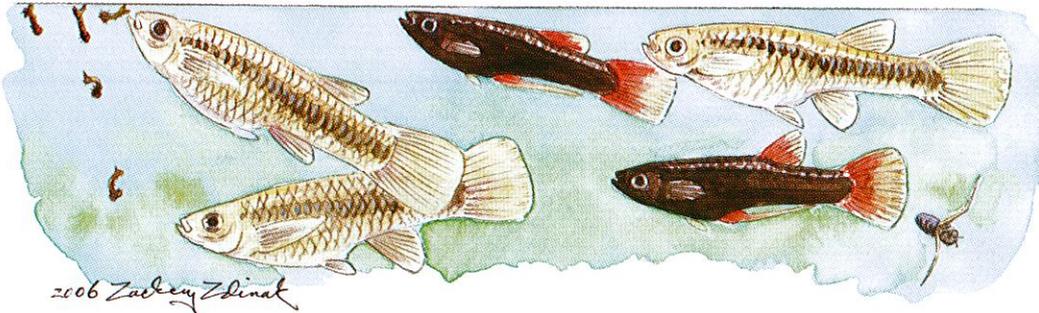


Gila Topminnow



SCIENTIFIC NAME: *Poeciliopsis occidentalis*. From the Greek words *poikilos* (“many-colored”) and *opsis* (“appearance”), referring to the male’s breeding coloration, and the Latin *occidentalis*, meaning “from the West,” referring to where the species is found.

DESCRIPTION: Gila topminnows are small fish; usually less than 2 inches long, they closely resemble the guppy that is common in the aquarium trade. The bodies of both males and females range from tan to olive, usually with white bellies. During breeding season, dominant mature males often appear blackened, with bright-yellow fins. Females remain drably colored throughout their lives.

DISTRIBUTION: In the United States, the Gila topminnow is native to the Gila River basin in Arizona and New Mexico. In Mexico, the Gila topminnow is native to the Río Sonora and Río de la Concepción.

Before the 1940s, Gila topminnows were the most common fish in the Gila River basin. Due to a variety of threats, the species is now found in less than 15 natural locations. But as a result of a stocking and management program, Gila topminnows are also found in about 20 reestablished locations within their historic range.

HABITAT: Gila topminnows prefer shallow, warm, fairly quiet waters, but they can acclimate to a much wider range of

conditions. Water temperatures in habitat containing topminnows have been reported from near freezing to 98 degrees, with a maximum tolerance of 110 degrees for brief periods.

Topminnows can live in a wide range of water chemistries, even tolerating water as salty as seawater. This type of fish prefers habitats containing dense mats of algae and debris, usually along stream margins, with sandy substrates sometimes covered with organic mud.

Topminnows are usually found in the upper third of the water column (hence the name “topminnow”), and young fishes show a preference for the warmest and shallowest areas. It has been reported that topminnows can tolerate almost total loss of water by burrowing into the mud for up to two days.

BIOLOGY: Dominant males defend territories and court females. If the larger territorial males are removed, smaller males will become dominant, take on breeding coloration and defend territories. Breeding occurs primarily from January to August, but in springs with constant warm temperatures, young may be produced throughout the year. Female Gila topminnows can store sperm for several months. They also typically carry two stages of embryos. Gila topminnows give birth to live young. The lifespan of this fish in natural settings is usually less than one year, but females typically outlive males and can

often live more than one year.

Gila topminnows are opportunistic feeders, consuming decaying organic material, vegetation and insects (including mosquito larvae).

STATUS: The Gila topminnow is listed as an endangered species under the U.S. Endangered Species Act.

MANAGEMENT NEEDS: Originally, it was thought that Gila topminnows could be quickly and easily recovered by reestablishing many new populations (a quantity-driven approach). When the limited success of this approach became clear in the late 1980s, managers began to emphasize the protection of higher quality habitat for natural and reestablished populations

Topminnows are usually found in the upper third of the water column.

(a quality-driven approach). Recent management successes include the department’s purchase of Coal Mine Spring near Patagonia, and the stocking of two sites on the Bureau of Land Management’s Agua Fria National Monument.

The main threats to the species include continued habitat loss and negative interactions with nonnative aquatic species, primarily mosquitofish and crayfish. The department is developing an agreement with the U.S. Fish and Wildlife Service that may allow use of topminnows in vector control programs to help reduce mosquito larvae in undesirable areas. 🦋

■ Jeremy Voeltz started working for the Arizona Game and Fish Department in 2000 as a technician on statewide native fish conservation projects. He now serves as the Gila topminnow and desert pupfish project coordinator in the Native Fish Program.