



## For Immediate Release

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## Endangered Fish Rediscovered in Santa Cruz River

*Return Demonstrates Role of Recycled Wastewater in Ecosystem Recovery*

December 7, 2015 –

After a ten-year absence, an endangered fish species has once again been found in the Santa Cruz River in southern Arizona. Last month the Gila topminnow, a native Arizona species listed under the Endangered Species Act in 1967, was found in the Santa Cruz River near the U.S.-Mexico border during the annual fish survey conducted by the Sonoran Institute, Arizona Game and Fish Department, Friends of the Santa Cruz River, National Park Service and other partners.

Scientists and local residents have eagerly awaited the fish's return since they were last seen in 2005. Surface flows along most of the Santa Cruz River originate from effluent (cleaned wastewater), and have historically been so polluted that no fish of any kind were found for several years and odor alone was a deterrent to recreation. Scientists believe that cleaner water is what led to the fish's return.

“We have seen such an improvement in water quality from a 2009 upgrade to the international wastewater treatment plant that we knew Gila topminnow would come back to the river. The

endangered topminnow has been living in Sonoita Creek, upstream of the Santa Cruz River, and the Santa Cruz River in Mexico, so most likely floods washed them down. Now we need to ensure they survive and thrive long term,” says Doug Duncan, fish biologist with the U.S. Fish and Wildlife Service.

“It’s rare to have a native fish species re-appear and occupy its former habitat, so this rediscovery is significant for our efforts to recover imperiled fish species throughout Arizona,” says Ross Timmons, topminnow recovery coordinator for the Arizona Game and Fish Department. “Without the ongoing monitoring of this partnership, it may have been some time before we realized they were back in the Santa Cruz River.”

The implications of the endangered topminnow discovery extend far beyond Santa Cruz County, and even beyond Arizona. Many southwestern rivers and streams depend on effluent for continued flows. As water becomes ever scarcer in the desert southwest, the value of wastewater inputs will only increase.

“Historically, communities have discharged effluent into river channels out of sheer convenience,” says Claire Zugmeyer, ecologist at the Tucson nonprofit Sonoran Institute, and long-time coordinator of the annual fish survey. “Upgrades to wastewater treatment facilities pay substantial community dividends. As rivers bounce back to health, they provide rich oases for both people and wildlife. We are demonstrating that effluent is a key solution for keeping desert rivers alive.”

Massive upgrades to the Nogales International Wastewater Treatment Plant have resulted in the elimination of odor, reduced levels of toxicity for fish, and a breakdown of the so-called “Schmutzdecke” (dirty blanket)—a clogging layer of algae and microorganisms that kept water from infiltrating into the groundwater table. University of Arizona scientists found that this clogging layer was largely responsible for an eight mile die-off of trees along the Santa Cruz River near Rio Rico in 2005.

“We are ecstatic to find Gila topminnow in the river again,” says Sherry Sass of the Friends of the Santa Cruz River, an all-volunteer organization at the forefront of river health advocacy. “We have been tracking river health since the early 1990s. The ability of the river to support such a sensitive species speaks volumes about the river’s recovery and its promise for the future.”

Additional community partners who helped in the discovery include the National Park Service Sonoran Desert Network, United States Geological Survey, and Global Community Communications Schools at Avalon Gardens.

“Tumacácori National Historical Park is thrilled to share in the announcement of the return of Gila topminnows to the Santa Cruz River. The detection of this native fish species shows that aquatic conditions have improved remarkably in recent years, transitioning back to a state more closely resembling that encountered during the establishment of the Tumacácori mission,” says Bob Love, superintendent at Tumacácori National Historical Park.

The Sonoran Institute is a nonprofit organization that inspires and enables community decisions and public policies that respect the land and people of western North America. Join us throughout 2015 in celebrating a landmark 25 Years Strong, Shaping the Future of the West. For more information, visit [www.sonoraninstitute.org](http://www.sonoraninstitute.org).

The Arizona Game and Fish Department's mission is to *conserve Arizona's diverse wildlife resources and manage for safe, compatible outdoor recreation opportunities for current and future generations*. The department has trust responsibility for managing more than 800 native wildlife species, the most of any inland state. [www.azgfd.gov](http://www.azgfd.gov)

Friends of the Santa Cruz River (FOSCR) is a volunteer conservation group dedicated to protecting the upper Santa Cruz River. Our goals are to ensure a continued flow of the river's surface waters, promote the highest water quality achievable, and to celebrate and restore the riparian ecosystem and diversity of life supported by the river's waters. Visit us at [www.foscraz.org](http://www.foscraz.org)

The National Park Service's mission is to preserve unimpaired the natural and cultural resources and values of the National Park System for the enjoyment, education, and inspiration of this and future generations. For more information about Tumacácori National Historical Park, visit our website: [www.nps.gov/tuma](http://www.nps.gov/tuma)

The mission of the U.S. Fish and Wildlife Service is working with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people. We are both a leader and trusted partner in fish and wildlife conservation, known for our scientific excellence, stewardship of lands and natural resources, dedicated professionals, and commitment to public service. For more information on our work in Arizona visit [www.fws.gov/southwest/es/arizona](http://www.fws.gov/southwest/es/arizona)

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**Video and photos:** To set up video or still photo shoots illustrating this story or on-site interviews, contact: Claire Zugmeyer, Sonoran Institute, Ecologist. 520-290-0828 ext. 1143 or [czugmeyer@sonoraninstitute.org](mailto:czugmeyer@sonoraninstitute.org)